# PACIFIC FISHERMAN

THE INTERNATIONAL JOURNAL

October 1961

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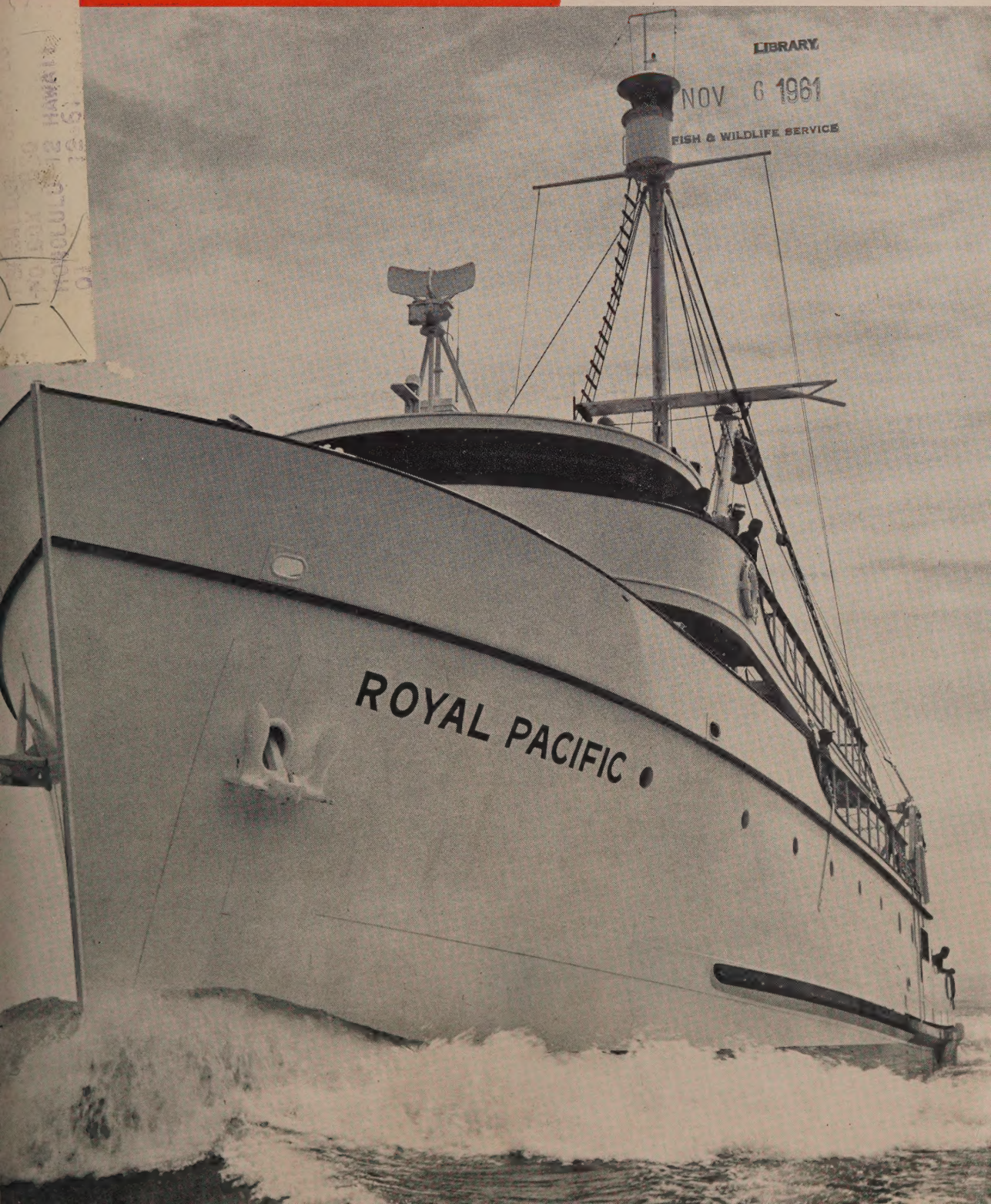

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## Table of Contents


Yellowfin Quota Sought ..... 7
1961 Good Year in Salmon ... 8
Royal Pacific Joins Fleet ..... 13
Cindy W—A New Seiner ..... 22
Rising French Tuna Fisheries .. 25
Notes on Nets ..... 29


# North Pacific Tensions

● Tension in the international fisheries of the North Pacific approached the point of strain in mid-autumn.

Factors producing this condition will be examined in Tokyo in October and November by Japan, Canada and the United States, signatories to the International North Pacific Fisheries Convention. The Soviet Union, not a member, but a very active participant in the fisheries in question, will be observing.

● What developments of 1961 specifically contribute to tensions more critical than any since 1957?

Belief by many Americans that the Japanese high seas fishery of 1961 bore more heavily on Red salmon of Alaskan origin than in any previous year. Japan's post-war record pack of Red salmon; the marked increase in numbers of net-marked fish entering Bristol Bay; and the mid-season collapse of the Bristol Bay run to levels well below scientific forecast are among the points of evidence cited in support of this thesis. There are others.

Multiplication of the Japanese King crab expeditions to eastern Bering Sea produces acute uneasiness in Alaska.

● Obvious build-up in the catch of halibut taken from waters where only halibut of North American origin reasonably could be expected to be found. (This point of course is of direct concern to Canada as well as the United States.)

Extension of trawling by the Japanese to waters south of the Aleutians, initiated in 1961, and with strong pressure for expansion in 1962, inevitably brings halibut stocks "originating along the coast of North America" under exploitation.

● Tensions arising under the North Pacific Treaty are not all on the eastern side of the Pacific. Japan's industry plainly chafes at the limitations laid upon it by the Abstention clause of the treaty; chafes, and prepares to seek a change as the treaty reaches the specified period of its minimum term.

These are all problems arising within the North Pacific treaty. What of those outside it?

Soviet Russia is steadily increasing its activity in the fisheries of the North Pacific. That it will seek also to increase its participation in their administration and conservation must be anticipated by the realistic.

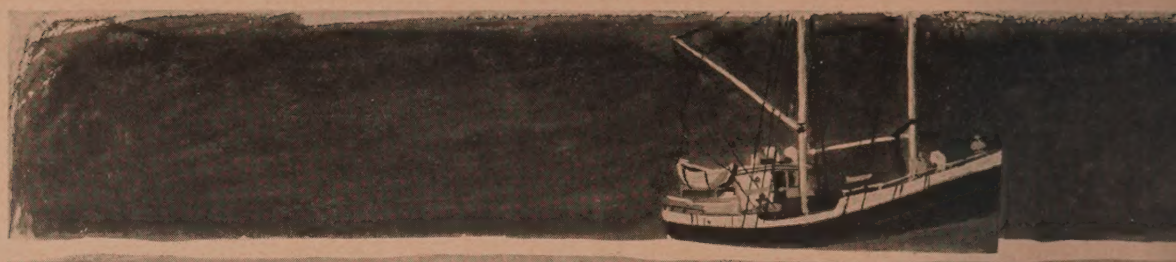
That the U.S.S.R. is committed to the harvest of salmon in coastal waters essential to conservation and fullest use is plain. That the Soviet is not satisfied with the condition of the Asian salmon resource and its conservation under its treaty with Japan is plainly announced.

To ignore these tensions and their implications is folly.

● It is the opinion of some leaders in the United States government that no North Pacific treaty can be truly effective in international fisheries conservation unless the Soviet Union is a party to it. These thinkers today are in a more powerful position in Washington than they have been at any time since the North Pacific treaty entered into force.

North Pacific Fisheries Conference in Tokyo this fall is of vital concern to all who live by these fisheries; to all who look to them for food; to the future's hope for conserved resources protected by Man's intelligence, to be used, but not destroyed.

There is a possibility that Secretary of the Interior Stewart L. Udall will be in attendance at the conference; and at time of writing it was believed possible that Governor William Egan of Alaska also might be present.

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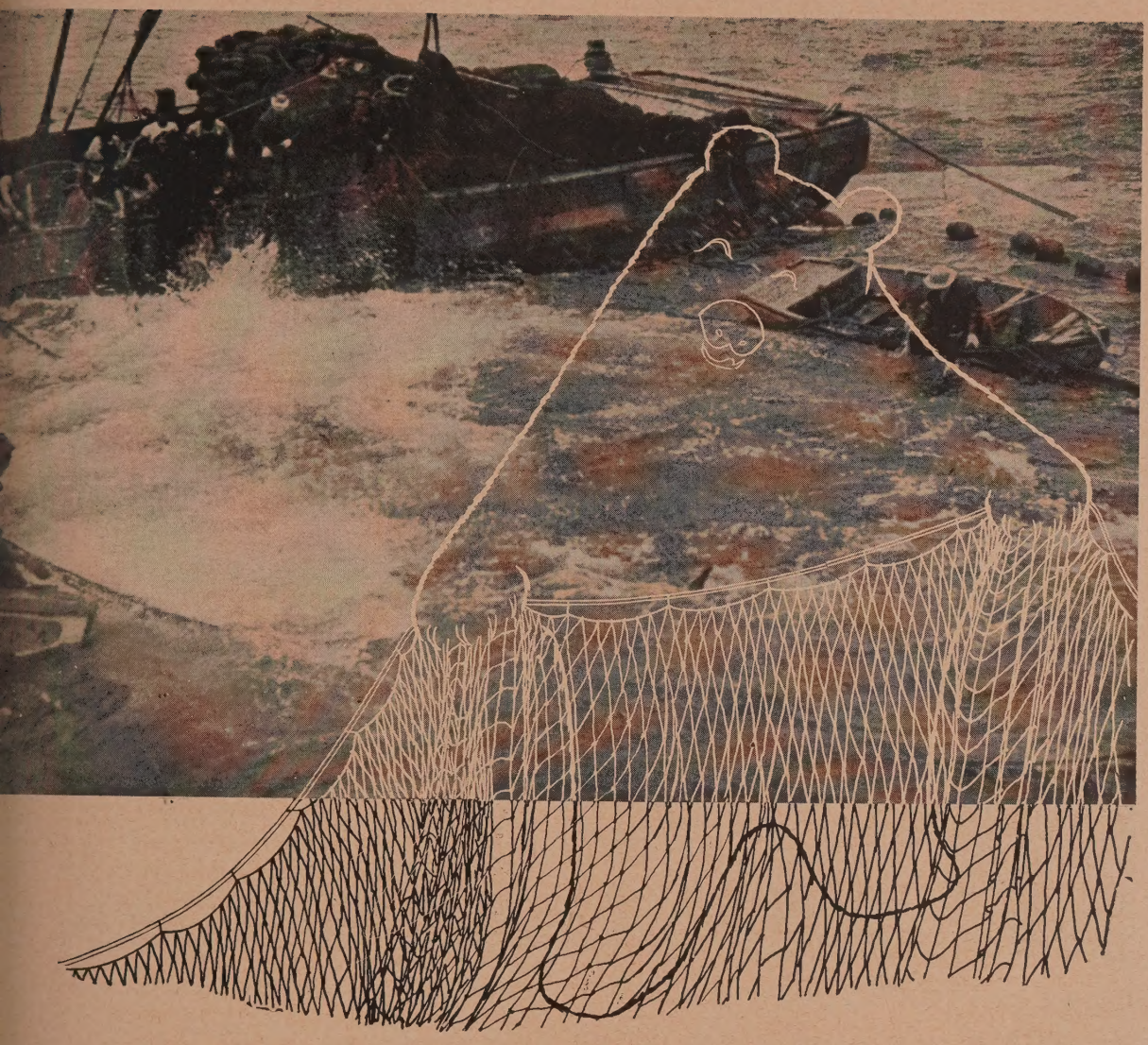

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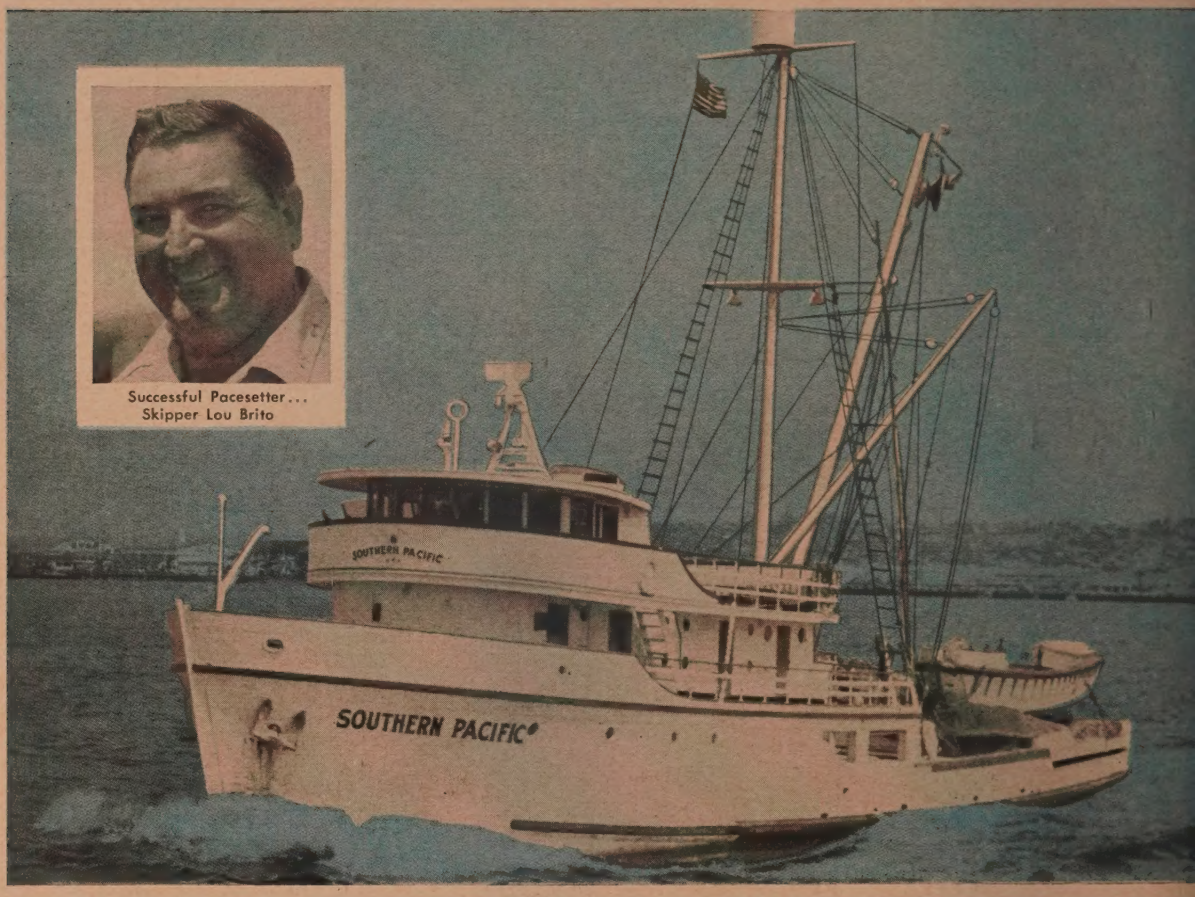


Successful Pacesetter...
Skipper Lou Brito

### FIRST IN SAN DIEGO TO CONVERT...

Lou Brito pioneered tuna seining when he converted the 125-foot *Southern Pacific* (shown) from pole fishing to purse seining. Linen Thread netting is still in use. "More dependable," reports Captain Brito.

### FAVORS HEAVY, KNOTTED NYLON NETTING

For the big, new tuna seine on the Royal Pacific, Captain Brito specified sturdy 54 thread and 60 thread Gold Medal Nylon Twine in knotted construction and Netset treated. "Nowadays we make sets in almost any weather, and when it's rough I like that heavy thread," he said. In Captain Brito's experience, knotted construction is best for the netting used in his seines. "I say, and my crew agrees, that Linen Thread is tops in tuna netting,' he added.

### FIRST TO BUILD FOR TUNA SEININ

Now being built in Martinac Shipyards is Lou B new 142-foot *Royal Pacific*, the first big tuna built from the keel up. Its seine, made of Linen T Knotted Nylon Netting, will be 485 fathoms lo fathoms deep.

### REPORTS TWO SPECIAL ECONOMI

Captain Brito also emphasized two special money-sav advantages he obtained with Linen Thread netting. was the Netset treatment: "With it, you can fish m than a year before retreating. Netset is not a hot tr ment; there is no injury to the netting in any way." addition, he reported savings in construction: "Beca the way the meshes work, I get more depth out of strip."


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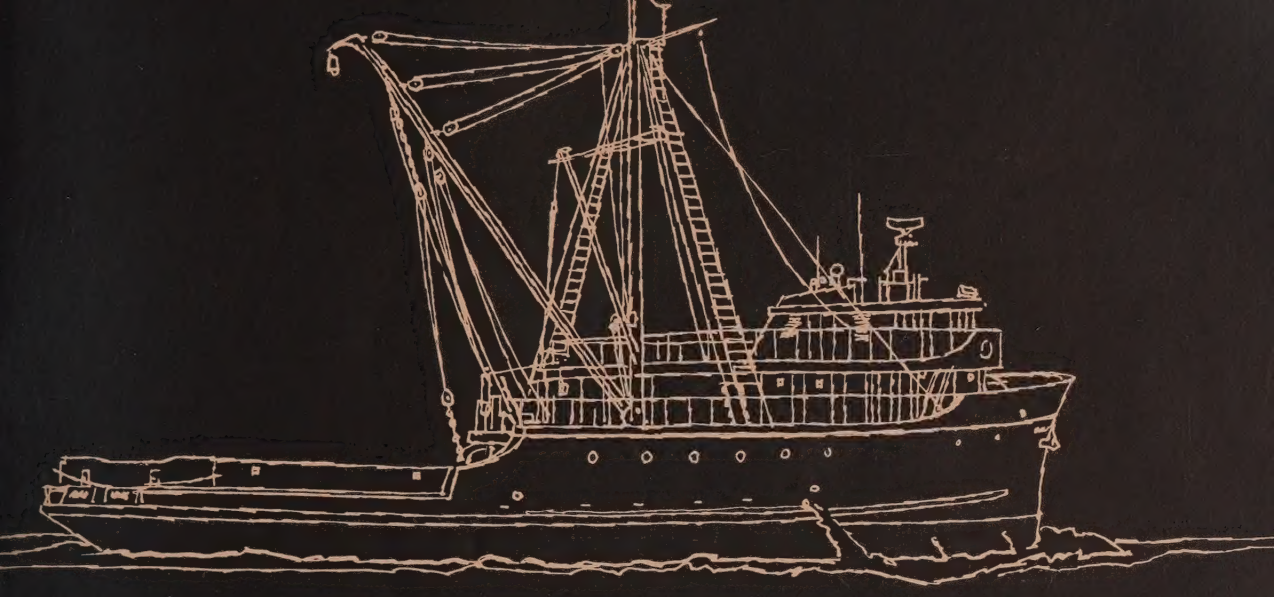

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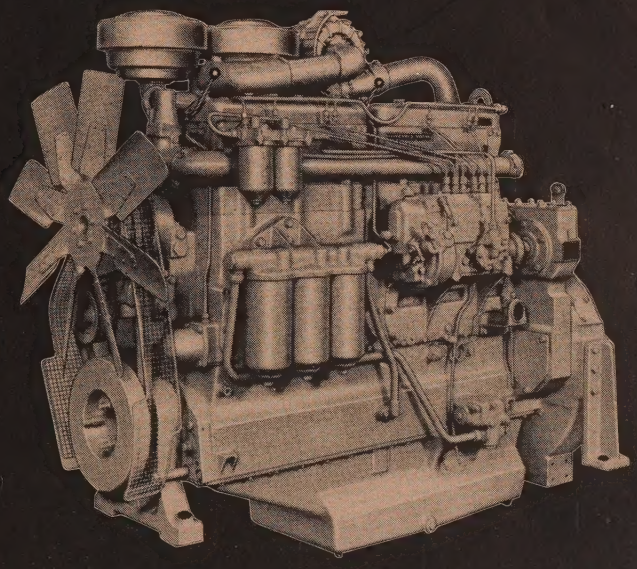

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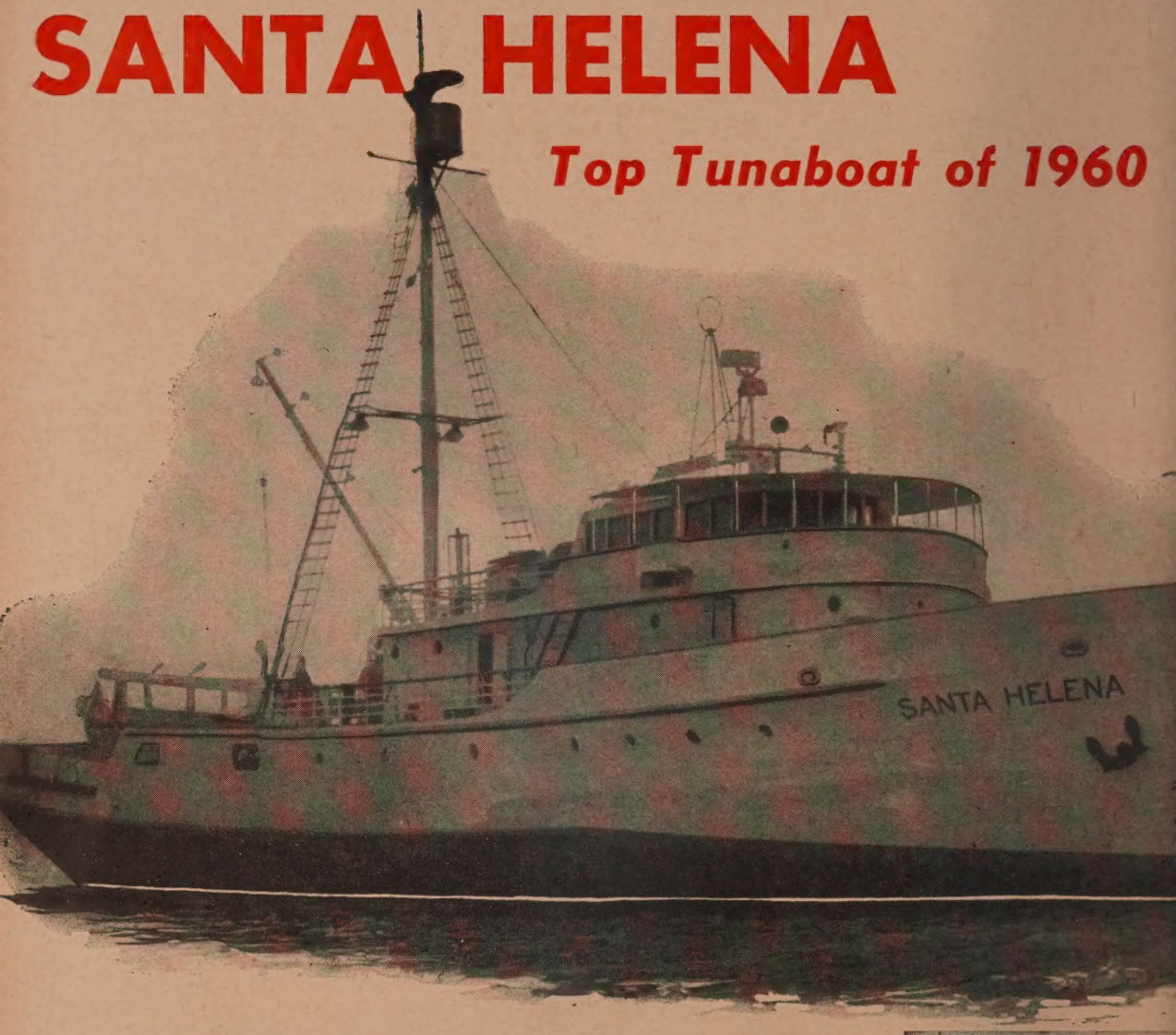
# SANTA HELENA

## *Top Tunaboat of 1960*




Here is what Frank Gargas, skipper of the Santa Helena, says about Momoi tuna netting:

> "I used a Momoi net on my former boat, and I know from experience that Momoi makes excellent quality synthetic webbing. With our Momoi net, we got all our netted fish into the boat. Also, I know other fishermen who use Momoi nets, and they have the same good luck I've had.
> "On the Santa Helena I'm using 500 fathoms by 35 fathoms of Momoi high-tenacity Nylon N. 42 4¼-inch tuna webbing".

Momoi tuna net is made with Nylon filament produced by TOYO RAYON CO., Osaka, Japan.

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**MOMOI CO., INC.**
1596 Judson St., Long Beach 13, California

# 83,000-Ton Yellowfin Quota Sought Under Treaty in 1962

Quota of 83,000 tons of Yellowfin a to be taken in 1962 by fishermen the United States, Panama, Ecuador l Costa Rica from the waters of the tern Pacific was recommended in otember to the member governments the Inter-American Tropical Tuna mmission.

Decision to recommend quota con- on the Yellowfin catch was reached the Tuna Commission at a meeting Long Beach, Calif., September 14.

The way control will operate, if the ommendations are accepted, is es- tially thus:

The 1962 Yellowfin season in the tern Pacific will open officially on uary 1, and will remain open until 600 tons of Yellowfin are landed are in the holds of vessels coming ne from the fishing grounds. e 74,600 total leaves a remainder of 00 tons to be caught before the total ta of 83,000 tons is landed. This is llow for incidental catches of Yel- fin associated with Skipjack tuna, which no limitation is recom- nded.

After the open-season 74,600 tons landed, vessels will be permitted land incidental Yellowfin along n their Skipjack catches up to the t of 15% Yellowfin in each load. s estimated that by the end of the r, with the open-season plus inci- tal catches added up, the grand l will be in the vicinity of the al- able 83,000-ton quota.

### ting Back the Shortage

The present problem in the Yellow- fishery, as explained by Dr. Milner Schaefer, director of research of the a Commission at the Long Beach eting, is to restore to the Yellowfin ery the tonnage in excess of the estimated "maximum sustainable yield" catch which will have been taken out of the fishery by the end of 1961.

By its scientific studies, the Tuna Commission has come up with the figure of 97,000 tons a year as its best estimate of the maximum sustainable yield of Yellowfin from the eastern Pacific. In other words, 97,000 tons is all the Yellowfin you can take out of this fishery and still keep getting 97,- 000 tons every year.

But the new tuna seiners, bigger vessels with improved gear and higher speed, have been catching Yellowfin much faster than that. The catch for 1960 was 116,000 tons; 1961 has yield- ed 90,000 tons to mid-September, and it is estimated that if that rate keeps up, fishermen will land 120,000 tons by the end of 1961.

Further, the maximum sustainabie yield point may have dropped from the "normal" 97,000 tons to somewhere between 87,000 tons and 95,000 de- pending on the recruitment of new, young fish into the fishery.

● In the resolution adopted by the Tuna Commission, and in the discus- sions at the Long Beach meeting, it was clearly stipulated that the 1961 catch statistics would be reviewed as soon as possible, and that if any differ- ence showed up between the estimates and the actual performance, the Com- mission's recommendations would be revised accordingly.

The question was asked: If fisher- men, through self-regulation, can re- duce the final 1961 catch substantially, would the Commission then raise the 1962 quota recommendations accord- ingly? The answer was: Yes. Also if the facts showed that a lower quota was necessary, the Commission would revise its recommendations.

All the way through, it should be remembered that the recommended quota is on Yellowfin only, and not on Skipjack tuna. On the contrary, fisher- men are encouraged to fish Skipjack, for nothing in the scientific studies of this species has ever shown that the ocean populations of Skipjack are in any danger of overfishing.

### What About Other Nations?

● The question also arises: Since only the United States, Costa Rica, Panama and Ecuador are parties to the tuna treaty, what is to prevent fisher- men of other nations catching Yellow- fin in spite of the need for conserva- tion? The answer is, of course, that non-signatory governments will be asked to cooperate for the general good of all interested in maintaining the resource.

The Tuna Commission recommen- dations, dictated as they were by the apparent facts revealed by scientific research, were thoroughly discussed at the Long Beach meeting by industry people representing not only the ves- sel owners and the fishermen, but can- ners, state and federal governments and non-treaty American republics.

Near the close of the meeting, ap- proval of the quota method and of the approximate tonnage figures consid- ered, was voiced by D. P. Loker of Star-Kist Foods, Inc., Anthony Nizet- ich of California Fishermen's Co-oper- ative Association; August Felando of American Tunaboat Association; Ad- miral Leslie E. Gehres of National Marine Terminal; John Royal of ILWU Fishermens Union, stipulating that efforts be made to limit fishermen of other nations from overfishing East- ern Pacific areas; and John Calise of Seine & Line Fishermens Union.

Present at the meeting were most of

the members of the advisory committee to the American section of the Tuna Commission, which includes Messrs. Loker, Nizetich, Felando, Royal, Calise; Charles R. Carry, California Fish Canners Association; W. D. Moore Jr., Van Camp Sea Food Co.; Max Gorby, California Marine Curing & Packing Co.; Andy Tipich, Fishermen's Co-operative Association; Lester W. Balinger, Seafarers International Union of North America, AFL-CIO; W. M. Chapman, The Resources Committee. Jerry Roberts, Marine Engineers; Janous Marks, National Marine Terminal; John McGowan, Bumble Bee Seafoods, Inc.; Joe Monti, Independent Fishermens Union; and Ed Silva, American T boat Association.

Among the distinguished fo observers were the consuls gener Colombia and Peru, Messrs. J. E verri and Antonio Mesones, and Pedro Mercado Sanchez, biologist rector of marine sciences, Unive of Baja California.

# — 1961 —

# A Good Year in Salmon

● Salmon canners of the United States and Canada knew by the end of September they could count 1961 as a *good year.*

That's speaking in general terms, of course, for there were areas of bitter disappointment and sharp losses; but on the whole these were more than compensated by good fishing elsewhere.

*Alaska* at presstime had a pack above 3,250,000 cases, better than in any year since 1952 in volume; and going back beyond that from the standpoint of adjusted value because the Reds, topping 1,300,000 cases, provided the largest pack of this species in any year since 1948.

*British Columbia* by the middle of September was above 1,350,000 cases and driving steadily toward 1.4 million. Beyond that the picture was uncertain, for the Chum run again promises to be weak.

*Pacific Northwest* states fell into the disappointing category. The Columbia River again showed the depressing effect of dams, diversions, pollution and the ever-increasing weight of sport fishing.

Puget Sound produced poorly, the Sockeye and the Pink runs pro the accuracy of the minimum for made in December, 1960, by the of the International Pacific Sal Fisheries Commission, which ha risdiction over the fishery for t two species running to the F River. The industry had *expected* r better for Sockeyes, and had *h* Pinks would not be as poor as cast. In each case, on the other h the run fell at or below the mini prediction.

**Labor of Unloading** has been greatly reduced on Bristol Bay by development of modern brailing methods. Here a pair of gillnetters pitch their fish into one of the great tubes from which they slide into the power scows. This type of brail is variously known as the "Sock", Japanese or "Sea-Mar" brailer.

# Alaska Pulls Up in Pinks

Alaska's surprise runs to Prince illiam Sound and the northern part Southeast Alaska went a long way ward wiping out the feared deficit in nk salmon supply.

Icy Strait got into heavy fishing rly, and before the middle of July nneries there were loaded and ship- ng their surplus to other districts in e Southeast region—notably to the etchikan area, which was hungry.

Brine tenders were a godsend all rough the season and enabled oper- ors to handle the good run, closely ncentrated in the northern area, without impairment of quality or loss of fish. They provided the means for dispersing the supply which was over-burdening one area to the plants strategically activated elsewhere.

This transport of fish makes it impossible accurately to rate the northern run, as large numbers of fish taken in Icy Strait and neighboring waters are listed statistically as canned in the Ketchikan area.

Prince William Sound, which wasn't even expected to be opened, so poor were the Pink prospects, came through with a surprising run. Pinks appeared from nowhere and slugged the streams on the eastern side of Prince William Sound so full of spawners that the Alaskan authorities opened fishing in a hurry and encouraged the industry to help prevent over-seeding.

Here again it will take a lot of computing to produce an accurate figure for the PWS production, as a good deal of it was hauled by brine tenders to Cook Inlet and Kodiak Island. With this assist, the island district came through with a surprisingly good Pink pack for an odd-numbered year.

South Peninsula canneries did very well, particularly on Pinks, where the pack, while no bonanza, was twice that of the cycle year.

# Cohoes Strong in Canada

With a pack much more than twice great as that of 1960 by mid-Sep- mber, British Columbia was having good year in salmon despite the dis- ppointing run of Sockeyes and Pinks the Fraser River.

Fishing was good in B.C., particu- rly in the northern part. Pinks were od up there, and down as far as Johnstone Strait.

But the big feature of the season in B.C. was the surprising pack of Cohoes. The Canadian coast was the principal beneficiary of remarkable Coho comeback. At presstime the pack of Cohoes had passed 200,000 cases, and to these properly should be added something over 12,000 cases of "Blue-backs," the Canadian term for Coho jacks. This makes it almost certain that British Columbia for the year will have the best pack of Cohoes and Bluebacks since 1951—and that's 10 years.

This strong run of Cohoes, coming after a number of years in which this species seemed declining under the heavy impact of exploitation, which has been intensified by the steady growth of sport fishing, provided one of the real surprises of 1961.

# Run to Puget Streams Fair

Salmon runs of 1961 to Puget und streams, as distinguished from ose bound for the Fraser, were quite ir.

This relates to the early run of Pinks d also to Silvers, whose comeback as one of the big bright spots of lmon in '61.

As previously mentioned, much of nk catch taken from American aters to the first of August—around 200,000 fish—consisted of salmon bound for Washington state streams, the Dungeness, Skagit, Stilligaumish, Snohomish and Nooksack.

The Skagit in particular had a good run and George C. Starlund, Washington director, was able to open it to fishing in order to crop what appeared to be excess. Unhappily for the purse seiners, they were barred from this fishery by Washington statute against this gear inside the screen of islands.

With the relinquishment of jurisdiction by the International Salmon Commission good fishing for Silvers was experienced.

● Gillnetters had their innings in 1961, at least through the Sockeye run, as their gear proved relatively much more effective than the seines. Reason for this is not well understood, but it is a fact that the Puget Sound purse seiners suffered serious economic hardship in 1961 while the gillnetters did quite well until the extended closures to protect the Pinks tied them up.

# Chill Saves Horsefly-Quesnel Sockeye Run

Great Horsefly-Quesnel Sockeye n, once the greatest component of e Fraser's salmon resource, was ved from a terrific setback by a ell of stormy weather, with a little ow and some heavy rains.

The escapement to the Horsefly, w estimated at about 375,000 Sock- e, reached the spawning area in two eat waves, only to encounter stream temperatures so high that they died by thousands unspawned. For many days it appeared the run might be lost, but the fortuitous temperature drop apparently saved the second wave.

Salmon Commission biologists were still computing the escapement, loss and successful spawning at presstime, but it appeared probable that at least half the total escapement—a round 175,000 fish, would spawn successfully. This is closely comparable with the successful spawning of the cycle year.

Fall reports from the distant Stuart Lake system indicated an excellent escapement and successful spawning for this race, which enters the Fraser on the 1961 cycle coincidentally with the Horsefly-Quesnel run.

# Sacrifice Saves Pink Run

• Sockeye and Pink salmon runs to the Fraser River in 1961 were both disappointing.

The International Salmon Commission has forecast a run of 5 million Sockeye, allowing 2 million catch for each country and 1 million for escapement. Actually, neither country got more than 1.4 million catch; and the escapement probably did not quite reach a million. In short, this was a little below the absolute minimum of 4 million contemplated in the forecast. The absence of jacks in 1960 was a good index.

Pinks were worse, showing the ruinous effect of the extreme high water on the Fraser in the late summer of 1959.

So the Pink forecast was for a run of 5 million, of which 2½ million was needed for escapement. Each country was expected to catch 1+ million. Actually, the total catch was only about a million, plus or minus a few thousands.

Much of the catch credited to the Canadian and U.S. fleet in treaty waters actually consisted of Pinks bound through convention waters to "inside" streams of Washington state and Canadian non-treaty streams. The run to the Fraser itself was almost wholly saved for spawning.

At presstime the Pink escapement could not yet be estimated, but it was far short of the 2½ million wanted, and probaby not much over 1 million.

What Pink escapement went up the Fraser was produced by two factors: 1, determination of the Salmon Commission that it would discharge its primary responsibility of assuring adequate seeding; 2, sacrifices of the fishermen of both countries, who accepted unprecedented closures to protect the spawners on which the future depends.

Neither the commission nor the fishermen liked the experience, but they went through with it for the sake of the resource.

Severity of the measures adopted are shown by this:

The American fleet had only 6 days of fishing from August 2 until September 18, when the commission surrendered jurisdiction in all treaty waters save the Fraser River itself and the Gulf of Georgia, including American waters south of Point Roberts.

This action was taken primarily to permit the catching of Cohoes under jurisdiction of Canadian and Washington fisheries departments. It was effective in this, for 350 Canadian gillnetters fishing in the outer strait took 43,000 Cohoes the first day, while the Americans inside got approximate 12,500 Cohoes.

The catch of Pinks during this fir re-opening was counted in hundreds– and at the time spawners were goir up the Fraser in substantial quantitie

## State's Sound Pack Is 800,000 Cases

BELLINGHAM, Aug. 24, 1905—More thi 800,000 cases of salmon is the estima placed on this year's pack for Puget Sou by Daniel L. Pratt, editor of **Pacific Fisherma** who is in the city getting figures on the pa made by local canneries.

Figures out by all canneries except one, t pack of which is admitted by Manager E. Deming to be over 200,000. By placing it 225,000, the total for Bellingham reach 289,700 cases.

The Bellingham Bay Canning Company pack was 33,500; the Astoria and Pug Sound Canning Co., 21,200; and the Sehon Canning Co., 10,000.

The value of the pack is $1,504,780. (Ed tor's Comment—Apparently value is for Be lingham pack only—but that's $5.18 per fu 48-lb. case of Puget Sound Sockeyes.)

• You noted the date, didn't you? This w a front-page story in the Seattle Post-Intel gencer of Aug. 24, 1905. The paper turned u recently in the files of Ralph Lomen, Seatt businessman, who made them available **Pacific Fisherman.**

**Power Scow and Brood—Husky** tailed by loaded gillnetters discharging their catches on the Naknek in heavy fishing early in July. "Get your limit—deliver it early and maybe you'll get an extension". A secret of high-boats is early delivery.

# Few Pinks Found On Norway Coast In 1961 Fishing

The Russian born and bred Barents Sea Pink salmon tribe, which was the great fishery novelty and sensation of the fishing in north Norway's rivers and coast waters during the summer of 1960, has hardly made itself felt at all during the 1961 season. Only very few and scattered specimens have been reported landed in the area where 20,000 kilos or about 12,000 specimens were taken last year.

An interesting and probably also significant report of the current year's fishing results comes from Spitzbergen where 20 Pink salmon have been taken at Kings Bay. Of the salmonide fishes this group of arctic islands has hitherto only known the marine char and the capelin.

Research work during the winter indicates that families of Pink salmon may have established themselves in North Norway. Spawning has been reported in 20 different rivers.

That 1961 is not a cycle year of the Barents Sea Pink salmon tribe is given as an explanation of the absence of the fish during the current year. This point may be proved by next year's fishing.

## Beach-Stranded Troller Dragged to Deep Water

Sands of Clatsop Beach, running south from the Columbia River entrance to Tillamook Head, give up few of the craft on which they once get a secure hold. That goes for everything from trollers to the great square-riggers, skeleton of at least one of which still shows above the sand.

A man with a bulldozer—plus the U. S. Coast Guard with two tugs — saved a stranded troller from these rocking sands in Mid-September.

John Rangell and Mark Voyd, Seattle trollers blundering around in a dense fog, ran the 40′ troller *Julia* through the surf and deep into the sand. Beam-n to the beach, the troller resisted the pull of the Coast Guard vessels until Claude Stanley, a Warrenton, Ore., contractor, took his tractor and bulldozer into the surf and dug a hole in the sand into which the troller's bow could be dragged at high tide. Once she was in-line with the strain on the hawser, *Julia* moved and was dragged into deep water.

**Christy Sports a Power Block**—Here is the Rawson-built plastic-and-glass-fiber gillnetter **Christy** running off Red Bluff, at the mouth of the Egegik, during the 1961 season. A number of Bristol Bay gillnetters found the Puretic block worked well in their form of fishing.

# A Fishery Problem for U.S. to Solve

● Indian rights in fisheries, often a perplexing problem for administrators charged with resource conservation, were exercised drastically on the Pink salmon resources of the Nooksack River, Washington during the Puget Sound Pink run of 1961. The Nooksack run may never recover.

Indian fisheries generally are conducted under the protection of treaties drawn before conservation was even a concept, and providing the right of fishing at any time or place within treaty waters.

Later the United States entered into another treaty, not with an Indian tribe but with a neighboring nation, Canada; and with the conservation of a great natural resource as its objective. This is the International Pacific Salmon Fisheries Convention, commonly called the Sockeye Salmon Treaty.

As it happens, the convention waters prescribed by the international treaty overlaps in Bellingham Bay the waters of the Lummi Indians reservation. The situation is further complicated by the fact that the State of Washington has established Bellingham Bay as a salmon preserve.

● Events of the summer of 1961 brought two treaties of the United States into conflict.

The facts are these:

Indian purse seiners of the Lummi tribe fished Pink salmon in waters of Puget Sound during periods when those waters were open to fishing under the jurisdiction of the International Salmon Commission and the State of Washington.

Then, when the commission directed closure of treaty waters in the interests of conservation, and to permit the scant run of Pinks to pass freely to their spawning grounds, the Indian purse seiners moved into the closed waters of Bellingham Bay. In waters of the reservation, which the United States has placed under the obligations of its treaty with Canada, the Indians fished in defiance of that treaty, claiming the protection of the earlier one establishing the Lummi Reservation.

Result? The Pink salmon run to the Nooksack was decimated, perhaps damaged irreparably.

● The situation is a complicated one, involving international obligations, aboriginal rights, the interests of a state, and the conservation of one of its natural resources.

It would appear imperative that the appropriate agencies of the government of the United States, presumably the Department of State and the Bureau of Indian Affairs, should undertake correction of an anomalous and intolerable situation. It should be corrected in the common interest, for the conservation of a natural resource belonging to all people, including the Lummi tribe of Indians.

Miss Martiri has been producing very well for her owners, F. Alioto Fish Co., San Francisco, according to Mario Alioto. Powered with a 165 hp. (continuous) Murphy Diesel, the trawler fishes from Morro Bay to Crescent City. The craft is skippered by Michele "Mike" Sciancalepore.

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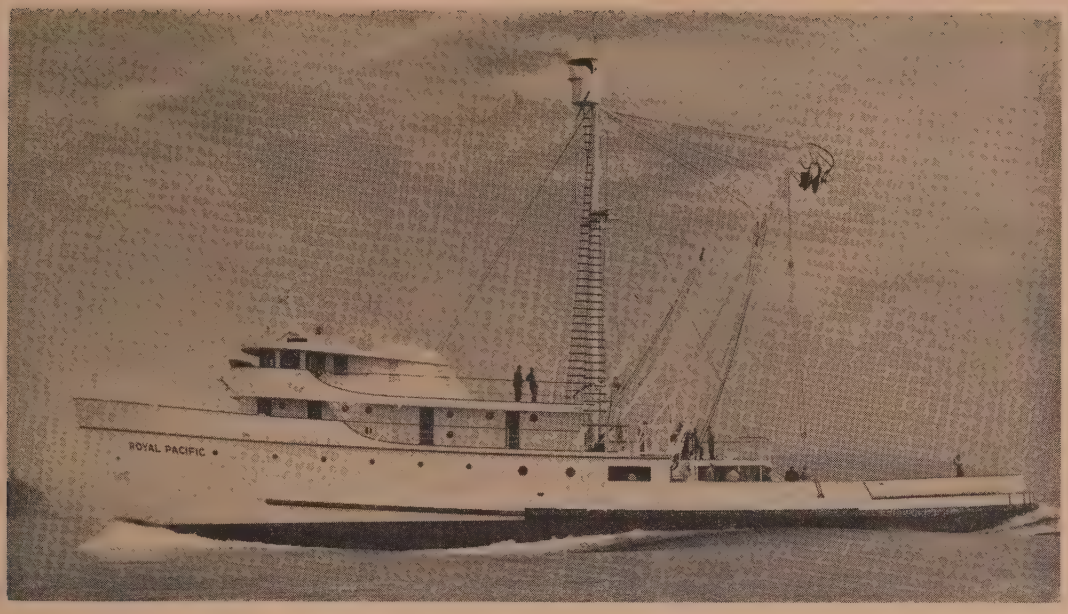


**Royal Pacific** running light, without net or skiff on her trials in Puget Sound, the first vessel to be built new for tuna seining in this revolution in American fishing.—Photo by Richards, Tacoma.

# ROYAL PACIFIC
# First of the New Fleet

● Purse seine revolution in tuna fishing took a new turn this fall when *Royal Pacific* put to sea — the first vessel to be built from the keel up as a tuna seiner since the nets displaced live bait as the primary source of American-caught tuna.

Here's a vessel *built* for a business, designed to do a job; and never intended to do anything else. She has many competitors, but they are all conversions, from clippers or from surplus vessels.

*Royal Pacific* is the forerunner of a new fleet, the pacemaker, the pathfinder, the pioneer. After her will come other vessels; and they will benefit from her, and from what she has proven as to design, equipment, methods and concept. One thing they can't take from her—the fact of being *first*.

● It takes courage to be first; and in the case of a 142' tuna seiner it takes dollars also, some 700,000 of them perhaps, at a guess. But leaving the matter of money aside for now, the pioneering of *Royal Pacific* called first for faith, and second for courage. In the case of *Royal Pacific* it was the faith and courage of Capt. Lou Brito, her master, and partner in her ownership with J. M. Martinac, J. S. Martinac and Fred Borovich. As were Lou Brito's other boats before her, she was designed and built by J. M. Martinac Shipbuilding Corporation in Tacoma, where Pacific purse seiners first were built; and where in *Royal Pacific* they attain a new peak of development.

● There's nothing capricious about *Royal Pacific*. She's a typical purse seiner of gigantic size, carrying the special gear of the modern tuna seiner of course, but with no outward departure from the orthodox. Oh, she has a few new wrinkles, of course—and we'll speak of them later—but in hull form and basic arrangement she follows proven principles, the first of her trade to be *built* for the revolution in tuna fishing. Let Capt. Brito himself sketch his thinking and the concept for *Royal Pacific*.

### A Pioneer, But No Experiment

"She's a *conventional* tuna seiner of the kind and design and equipment which have been proven in practice. She's wholly new, of course, and her equipment is up-to-date in all respects, incorporating the best of features that we are sure are *right*. We're *pioneering* in building this first one of the new seiners, but we aren't *experimenting*. There's a difference. We're willing to let others experiment while we're catching tuna, which we know a vessel such as this can do.

"Some people are surprised that she carries a turntable, because that's supposed to be old-fashioned and superfluous. Way I feel about turntables is this: I like 'em; and the fishermen favor 'em—and that's enough for me."

This turntable is really a part of the vessel, low and flat and huge, conforming to it in all respects; and turning smoothly on permanently lubricated anti-friction roller-bearing rollers.

MARTINAC

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*J. M. Martinac*

SHIPBUILDING CORPORATION

TACOMA, WASHINGTON

**The Martinacs**—builders of **Royal Pacific;** both named Joe. On the right, **J. M.,** head of the shipbuilding corporation which bears his name, and on the left **J. S.,** his son, general manager of the firm. They, with **Fred Borovich,** also a member of the company, and **Capt. Lou Brito,** are the owners of **Royal Pacific.**

**Lou Brito,** master and part owner in **Royal Pacific,** on the left, with **Yosh Lamime,** her deck boss on the right; and in between **Donald McVittie,** general manager of Marine Construction and Design Co., which provided her specialized, hydraulically driven deck machinery—winches, power block, steering engine, etc.

● But now to other things, the huge hull, the net with which it fishes, the power which drives it, the cold which keeps the cargo, the instruments which serve her, and those innovations we spoke about before.

*Royal Pacific* is 142′ overall length, 33.5′ beam and 15′9″ moulded depth. She is built of wood—with an exception to be noted in a moment—and is featured by her laminated fir frames produced by Woodlam, Inc., which bring to the field of fishing vessel construction the astonishing precision of form and strength-with-lightness characteristics of modern timber lamination techniques. Construction in all respects and in full measure meets the traditional standards which are the mark of Martinac.

Cargo capacity of the vessel is figured by Capt. Brito at from 430 to 450 tons.

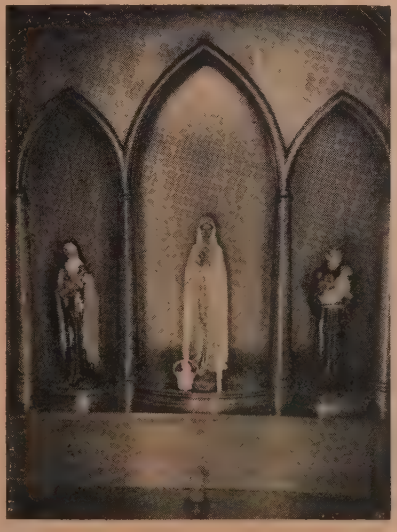
An interesting aspect of *Royal Pacific*—and one of the innovations of which we spoke in the beginning—is her composite construction forward, where welded aluminum bulwarks make it possible to give the bows a more pronounced flare than can be managed in wood. The flare is not alone for looks—although it contributes a jaunty air—but serves to provide a dry ship forward in a head sea; and the broad, clear fore peak is functionally important in tuna seining, particularly in the work of corkline pursing.

● Turning now to power and machines—

Chief Engineer is Al Zolezzi. Main engine in *Royal Pacific* is a Fairbanks-Morse opposed piston, 10-cylinder diesel, producing 1,600 h.p. This is the engine developed to power submarines and which has proven equally suitable for tuna vessels. It turns a Monel tailshaft furnished by Eagle Metals Co. through a Goodrich Cutless rubber bearing, with a five-bladed Coolidge wheel 87″ diameter by 58-63″ graduated pitch. *Royal Pacific* delivered a two-way average speed of 12.15 knots on her trial run.

Flanking the main engine, and mounted atop wing fuel tanks, are twin Caterpillar diesels, Model D-342, each of 220 hp. They drive Electric Machinery 150 kw. generators; and the port engine also has a lug belt power take-off through which it can drive two Vickers pumps for the hydraulic system. This is a standby, as the primary hydraulic drive is the duty of a G.M. diesel situated on the upper engine deck. The two Caterpillar diesels and the E.M. generators were furnished by NC Marine, Seattle.

All pumps and electric motors on *Royal Pacific* are of Fairbanks-Morse manufacture. An interesting feature of the refrigeration system is the fact that the 40-hp. F-M motors driving the four main refrigeration compressors are mounted on the forward bulkhead of the engineroom, immediately below the ice machines, which are driven by V-belts running vertically to the compressors on the upper engine deck immediately above. These main compressors are 6 by 6″ Worthingtons, duplex type. Ship's stores are protected by a 4 by 4 Worthington duplex.



**Men of Faith** in the American tuna fleet have chapels such as this of the **Royal Pacific** aboard their tuna fishing vessels.

● Instrumentation selected by Captain Brito is designed to serve a working fisherman.

Of particular interest is the Northwest Instrument Co. Model NW-3-HST medium frequency and high seas frequency radiotelephone equipment. This dual unit provides 10 channels of operation *in the medium frequency range* of two through nine megacycles with input power of 260 watts to the final stage (except for the ship to ship bands which are reduced to a 150 watts input to suit F.C.C. regulations).

The *high seas companion unit* provides 11 channels for operation in the 8, 12, 17 and 22 megacycle ranges.

# ON THE ROYAL PACIFIC

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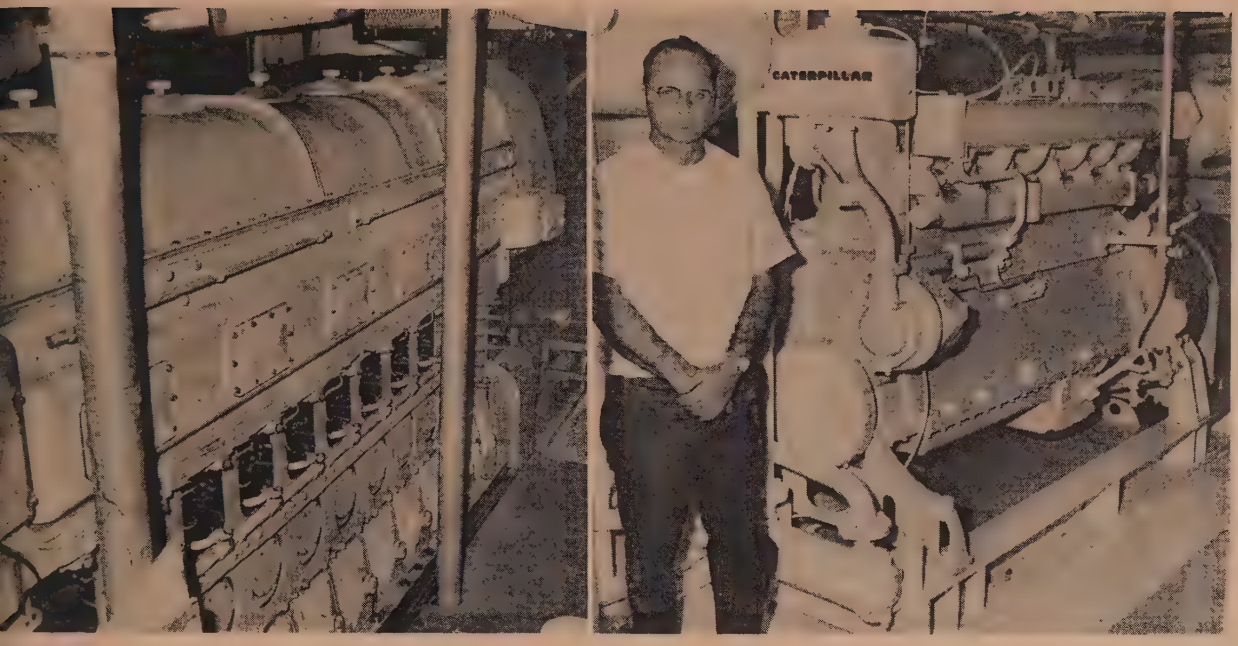



**hief Engineer and his diesels**—On the left the great opposed-piston Fairbanks-Morse main diesel whose 1,600-p. powered **Royal Pacific** to 12.5 knots average on her trial. **Al Zolezzi,** chief engineer, stands by one of her wo Caterpillar 220-hp. auxiliaries. She has a fourth diesel on the upper engine deck.

his equipment allows communication n High Seas channels not only with MI at Oakland, Calif., but also with VOM at Miami, Fla., and KQM, onolulu, Hawaii. In addition, it pro-des receiving channels for time sig-al broadcasts from station WWV, Vashington, D. C., on 5, 10, 15 and 0 megacycles.

There is a tuneable radio receiver uilt into the medium frequency unit hich provides tuneable receiver cov-age from 550 kilocycles through 13,-00 kilocycles. This unit can be used monitor a second frequency while e crystal controlled receiver is moni-ring.

An Apelco Model AE-160M, 11-annel medium frequency and High as radiotelephone rated at 150 watts put to the final stage is also installed oard the vessel.

Except for the Marco hydraulic eering engine, the steering system is l by Sperry, including the magnetic mpass pilot, steering stand and con-ols. It was furnished by Northwest strument Co., Sperry distributor on uget Sound.

Sounding is provided for with two aytheon Fathometers, one with 1,000 thom range for off-shore fishing urposes; and the other with 200' nge for coastal and harbor naviga-on. She carries a Ranger radar from ectric Service Co., Seattle. Later, d in cooperation with the Navy's eanographic researches, the vessel ll install a recording echo-sounder th range to *6,000 fathoms,* plus a thothermographic instrument which will record temperatures at depth, distinguishing the thermocline with its apparent vital effect on tuna occurrence and tuna fishing.

**Gull's Eye View** of the great tuna seiner **Royal Pacific** from a Tacoma bridge. Note particularly her Puretic brailing system boom laid inboard just forward of the davit; and the Marco seine winch, first to be installed on an American tuna vessel. —Richards photo.

### Hydraulic Deck Gear System

● Major items of deck gear aboard *Royal Pacific,* with the exception of the Martinac anchor winch, were engineered and manufactured by Marine Construction & Design Co., Seattle. The list includes: main purse winch, Puretic power block, Puretic power brailing system, boom topping winch, vanging winches, small boom winch and choker winch.

All of these units are hydraulically driven from one central hydraulic system designed by Marco and including tanks, filters, pumps and all controls. The main source of power for the system is a General Motors 671 diesel which drives one double and two single Vickers pumps. Emergency service is provided by similar pumping units which can be driven from the port Caterpillar auxiliary.

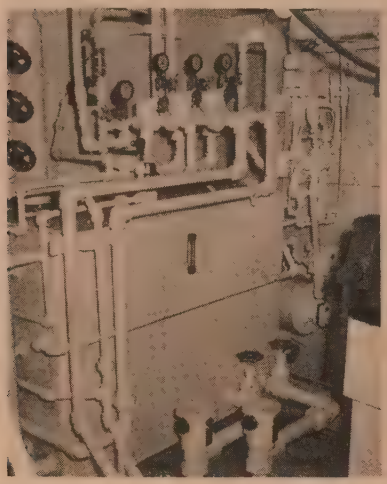
There are three hydraulic control consoles, all provided by Marco. One, handling the Puretic brailing system, is located on the kingpost of this device; two, for controlling the power block, vanging and topping winches, the choker winch and the two auxiliary drums of the main seine winch; three, the main seine winch control stand itself.

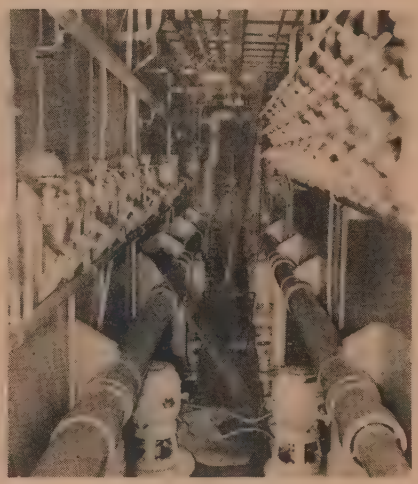
● The main purse seine winch is a new development and concept of a marine winch, and is specifically de-

signed for the modern tuna purse seiner. The winch, drive by two Vickers motors, has a high and a low speed range so that pursing may be done rapidly. Then maximum power at half speed is available for picking the rings and other heavy duty services. Each drum has a separate brake and clutch assembly, consisting of multiple discs hydraulically actuated from remote locations. All gearing, clutches, and brakes are contained within the double wall construction on the forward side of the winch. This case is partially filled with oil in order to provide the utmost in reliability and protection for the machined surfaces. Each main drum is equipped with a hydraulically actuated and powered level wind. Two auxiliary drums are located across the back of the winch, and are equipped with a hydraulic disc-type clutch and hydraulically-actuated band brakes.

The control valves for the brake and clutches on the main winch are of special Marco design that permit the operator to "feel" the load—that is, the heavier the load he is lifting with one of the drums the greater the manual force on the valve handle.

Five similar seine winches have been delivered by Marco to foreign interests, with the first installation being made on the converted Spanis vessel *Marinero*. Four sets of equip ment similar to that installed on th *Marinero* and the *Royal Pacific*, wit the exception of the power braile are being installed on new tuna purs seiners currently building in Englan for interests in Ghana.





**Pipes and Pumps and Valves** are vital in a tuna vessel. On the left is the Marine Construction & Design Co. central hydraulic system, including tanks, filters, pumps, gauges, valves and controls. Right photograph, looking aft in the shaft alley, shows the multitude of valves, motors, pumps, pipes and thermocouples needed to refrigerate and safeguard 450 tons of tuna.

**Deck Gear Innovations** installed on **Royal Pacific** for the first time aboard American tuna seiners. The specially designed Marco seine winch shares interest with the Puretic brailing system, also Marco-built, shown above. Note the hydraulic cylinders and hoist which power it when it swing outboard over the net. Purse blocks on the davit are Northern design.

### The Enormous Nylon Net

● Now for the net, the enormou structure of nylon which is set, fishe and retrieved by this gear; and fo the deck boss who directs its han dling. He is Yosh Iamime, who ha worked with Capt. Brito for man years. They know each other's way

When she left Puget Sound *Roya Pacific* had yet to pick up her net an skiffs in San Diego. The two skif were built there by Mauricio & Son The big one—and it *is* big, 30 by 1 —is powered with a General Moto 671 diesel. The 14′ utility boat has well-installed outboard engine.

The net, which was purchase through Nuttall-Styris, was of Th Linen Thread Co. manufacture. It 480 fathoms in length by 50 fathom deep, and is made of 54-thread an 60-thread Gold Medal nylon twin in knotted construction and Netse treated against slippage.

● All lines on the *Royal Pacific* great net are Samson braided nylon This includes the corkline, which composed of 100 fathoms of 1 braided nylon at each end, with th balance ¾″ Samson braided.

Likewise the cork purse lines ar of the same type, the first three bein ¾″ Samson braided, with the succeed ing ones ⅝″. The three "zipper" line are also ⅝″ nylon by Samson.

Wire rope for the *Royal Pacific* gear was all of Macwhyte Wire Rop Co. manufacture, procured throug B. & J. Equipment Co., Seattle. Th total wire rope requirements came t 7,000′, all of it ⅝″, and all six-stran Seale construction, galvanized, 1 wires to the strand. Construction pre-formed and the material improve plow steel with a fiber core.

Principal wire rope item is the 520 fathom purseline.

### Introducing Puretic Brailing Syster

● Brailing has become one of the pr mary problems in modern large-ton nage tuna seining, for the fish mus be gotten out of the bag before the die and the mass becomes unmanage able. To brail the wrapped-up schoo of fish out of the sea and into th hold in the shortest possible time ha become a challenge to the tuna fish ermen and the men who devise an perfect the gear with which they fish

Mario Puretic, who invented th

ower block and thus set-up the revo-ition which has overturned the whole attern of tuna fishing, accepted the allenge, and the Puretic brailing sys-m is installed on *Royal Pacific* for e first time on a tuna seiner; al-ough Capt. Brito tested the proto-pe brailer on the *Southern Pacific* rly last spring. These tests disclosed e necessity for a special means of andling the scoop brailer itself.

To meet this need, *Royal Pacific* equipped with a kingpost on the ort rail at the shrouds just forward f the purse davit. The kingpost sup-orts the boom designed specifically or handling the brailer and a two-ton railing winch. Vanging of the boom hydraulic, and all controls are han-led from the operator's station on a inged platform which folds out over e ship's side. Beside providing un-estricted visibility, it furnishes a tail old for the outboard vang.

The kingpost and brailing boom lso can be used for unloading cargo om the unloading well by removing e brailer and installing a hook for fting the cargo buckets from the well.

Chutes and hopper for receiving e fish from the brailer and distrib-ting it to the several brine wells for efrigeration are made of ⅜" welded luminum plate."

Thus the Puretic brailing system is ne of the innovations of *Royal Pa-ific* of which we spoke earlier.

Another, interesting but less impor-nt, also is associated with brailing. is a wire mesh belt conveyor built lmost flush with the deck in the way f the brailer discharge point and run-ing to the starboard rail, where it ter-inates in a gate which can be opened the bulwark.

What is it? It's a shark-and-por-oise dumper. In brailing tuna un-anted sharks frequently come board. They're apt to be big, trucu-nt devils, weighing 100 to 500 lbs., nd wearing a suit of coarse send-aper which cuts human skin like an mery wheel. Tunamen consider them nemies, and treat them as such, but ven a dead enemy weighing 400 lbs. hard to heave overboard, unless you ave a handy sharkveyor on which to rag him. Touch a lever to start a ttle drive motor, free the gate in the ail, and over he goes to feed other harks.

Porpoise are returned to the sea nharmed, a process facilitated by the sharkveyor."

Hard-by the sharkveyor discharge oint on the starboard rail is another ydraulic unit, the choker winch, from which a line runs out to haul on the zipper lines, choking the net and dividing the catch into splits in separate sections of net.. In this operation the choker line extends across the vessel's working space, but at times when the choker winch is inactive—that is, *most* of the time—it is well out of the way.

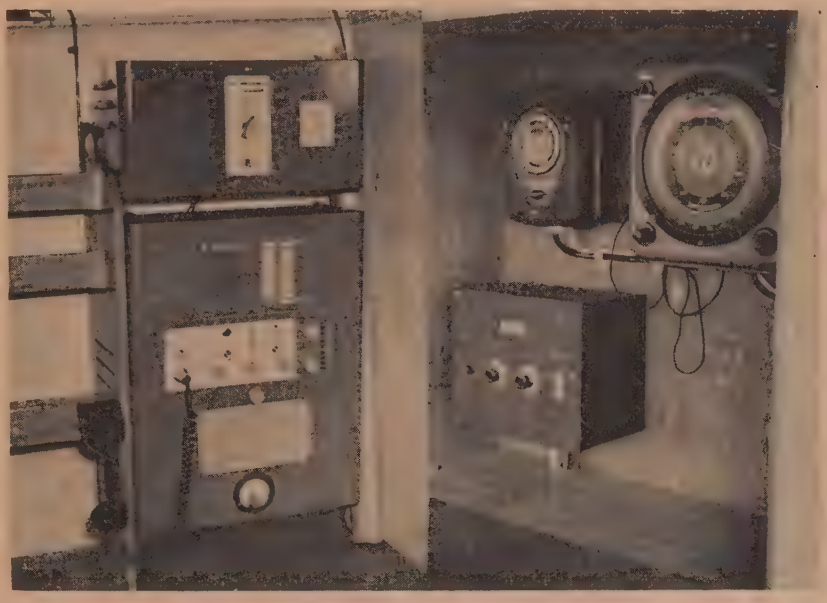
Marco topping and vanging winches are pretty much standard, being the well-proven conventional types.

### Of Safety and Of Faith

● Seaworthiness came in for special attention on *Royal Pacific*. Beside the usual careful Martinac attention to stability and soundness of construction, she neatly blocks that vulnerable point in tuna vessel design, the upper engineroom.

Item: entrance to the house from the working space on the main deck is through a watertight door on the starboard side. Galley runs to the rail on the port side. In heavy weather this door is shut, or should be.

Item: engineroom ventilation is handled by two big fans situated in a blower compartment on the upper deck. Closure between the engineroom and the shaft alley also is a



**Instrumentation on Royal Pacific** is featured by this 21-channel Northwest high seas and medium frequency radio-telephone, an advanced unit with remarkable capability, on the left; and the two Raytheon Fathometers on the right, one with range to 200 feet and the larger to 1,000 fathoms. **Royal Pacific** carries a magnetic compass pilot and steering system by Sperry; and a radar.

**Shark-Dumper** built into **Royal Pacific,** showing the motor-driven conveyor leading to a port in the ship's side. Immediately above the port is the Marco hydraulic choker winch.

# MARCO SERVES the TUNA FLEET

J. M. Martinac Shipbuilding Corporation's "Royal Pacific"

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## *"Royal Pacific"*

- SEINE WINCH
- PURETIC POWER BLOCK
- BOOM TOPPING WINCH
- CHOKER WINCH
- CARGO WINCHES
- BOOM VANG WINCHES
- HYDRAULIC STEERING ENGINE
- WESTERN PURSE RELEASE
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atertight door.

Galley in *Royal Pacific* is a gleam-
g place presided over by Manuel A.
hagas, cook. It is fitted with an all-
ectric range and refrigerator in stain-
ss steel; with such added accessories
deep-fryer and coffee-maker.

It's a pleasant, roomy place, and
ove the table is a mounted silver
s-relief plaque of The Last Supper.

On the upper deck, starboard, is the
ssel's chapel, a place of prayer,
r fishermen traditionally are men
faith. Four, and perhaps eight, of
hrist's disciples were fishermen. As
ey were 12, so there are 12 men
so in the *Royal Pacific's* crew, count-
g Capt. Brito. They are a tried lot,
rgely transferred from *Southern Pa-
fic,* his last vessel, now in command
Bill Magellan.

Interestingly, all four of Capt. Bri-
's tuna vessels have been built by
lartinac. He started with the clipper
outhland;* then had the *South Pacific*
ilt. Again he came back to Tacoma
nd the Martinac ways for *Southern
acific,* whose conversion to seining
as the first and one of the most suc-
ssful — and now to Martinac again
r *Royal Pacific,* first vessel of the
urse seine revolution in tuna fishing
be built new for that new trade.

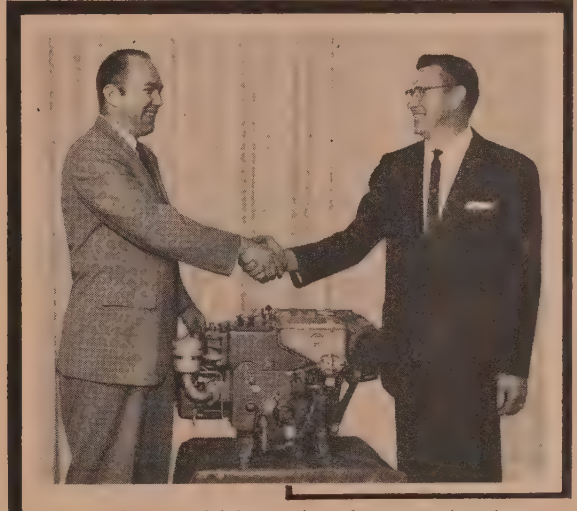
**railing control** platform of the
uretic system. Built by Marco, the
latform folds down to the hori-
ontal outboard. The hydraulic con-
ol levers turn outboard. The king-
ost at the left supports the brailing
oom with its hydraulically-actuated
am-shell brailing bucket.

# The ROYAL PACIFIC Pictures

● Magnificent photograph of the on-charging *Royal Pacific* on the cover of this issue is the work of Bob Richards of the Richards Studio, Tacoma. It is a fitting symbol of this vessel herself, which is the first craft to be built from the keel up as a tuna seiner since the net revolution.

Photographs in our article on *Royal Pacific* include two others by Richards, while that of Engineer Zolezzi in his engineroom is by Leigh Nold of NC Marine, Caterpillar distributors.

All other pictures accompanying the article are PACIFIC FISHERMAN staff photographs.

Carl Hayward, left, president of Continental Machinery Corporation with Bob Kafka of Anderson-O'Brien.

"THANKS TO YANMAR DIESEL ENGINES . . .

our extensive diesel line is complete," says Bob Kafka, marine sales manager for Anderson-O'Brien, Southern California General Motors distributor of marine and industrial diesels. "Many of our customers required a low horsepower diesel for auxiliary marine and industrial use. Yanmar has what we needed—a precision-built, compact, light-weight diesel engine in the 2½ to 8 BHP range. Through the facilities of Continental Machinery Corporation, U.S. distributor for Yanmar, we are assured of prompt delivery and expert technical assistance."

*Dealerships still open in U.S. and Mexico*

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**Two views of Cindy W.** disclose various features of this rather unusual steel combination craft designed to earn share virtually around the calendar. She's a working fisherman fit for various lines of work for every type fis ing—as a seiner, king crabber, long-liner for halibut or as a trawler. Deck arrangement makes it easy to shift fro one fishery to another.

# *CINDY W.*—

## A Seiner Which Dares to be Different

● Daring to be different, and thereby perhaps to pioneer developments which may affect fishing boats of the future by rendering them more versatile, more productive—

That's *Cindy W.*, which opened her career as a salmon seiner on Puget Sound in 1961, fishing for Washington Fish & Oyster Co., but which is equally well suited for King crab fishing, coastal halibut longlining, and trawling. As a contribution to ready convertibility, she is without turntable.

She's a steel boat, built by W. B. Fisheries' boat yard at Bellingham, Wash., in slack periods and owned by George "Tex" Williams, head of the W. B. Fisheries Company, and his nephew, Lawrence "Larry" Williams, who is *Cindy W.'s* skipper.

Designed by Phil Brinck & Associates, Seattle, the *Cindy W.* gets a lot of boat into her 48 by 16', drawing 6' and capable of carrying 35 tons. She is welded of ¼" steel plate; but the house is of aluminum, using the Reynolds snap-lock type of construction.

● One of the unusual features of the vessel is the elimination of the purse davit and the substitution of a rail roller similar to that employed in halibut fishing. You say it won't work? Well, it *did*. Maybe it's an idea.

The roller with its fairleads is placed in a well in the rail and can be removed at will.

Another feature is the elimination of the conventional steering wheel in favor of a lever or "jog" which actuates an aircraft-type hydraulic cylinder which operates a power steering unit of the automotive type.

Hydraulic power also is extended to the *Cindy W.'s* power block, which was built in the B. F. Fisheries' machine shop; and also to the anchor windlass.

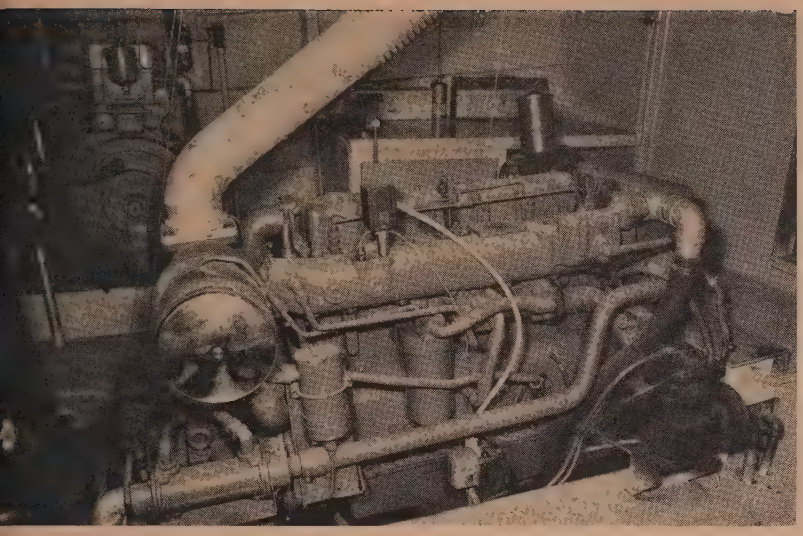
● *Cindy W.* takes her power from an Allis-Chalmers diesel engine, Model AC-11000, developing 150-hp. at 1,800 rpm. and equipped with a 3.39:1 Twin-Disc reverse and reduction gear. Sold by the Ballard Division of Pacific Marine Supply Co., Seattle, this is the first Allis-Chalmers diesel of this particular model to be sold in the Pacific Northwest, if not on the entire Pacific Coast. The front end power take-off works through an 8" Fawick air clutch. Propeller is 42 by 28" Federal Nibral.

The Monel tailshaft, 2.75", turn in Ryertex bearings manufactured b Ryerson Steel. Speed developed ap proximated 10 knots with net aboar and all ready for fishing, includin the steel seine skiff in tow.

Auxiliary diesel is an 8-hp. Liste driving a 31-ampere, 35-37½ v. alte nator and two Jabsco pumps, 1.25 and 1.75". The larger of these is pr vided for salt water circulation to th watertight hold when the *Cindy W* is crabbing and the catch is carrie alive.

The vessel's diesel is protected b PMS, Ballard Division, with Murph safety controls which detect and re veal high temperature of cooling wate and low oil pressure. Some 200 o these units were installed this year o fishing craft built on Puget Soun most of them finding their employ ment in gillnetters and other relative ly small craft, for which they are pa ticularly well suited, especially in th matter of necessary outlay.

Instrumentation of the *Cindy W* includes a 100-fathom Bendix dept



**ain and Auxiliary Diesels** which carry the power responsibilities aboard **indy W.** Note the clear, ample space resulting from her steel construction nd the longitudinal framing used. Allis-Chalmers main diesel installation particularly accessible. Note the Lister diesel auxiliary in the upper left.

dicator and a Bendix Model 365 ipper radiotelephone. Compass is Ritchie spherical. Other equipment cludes an Olympic range, Sun Elec- ic tachometer, Delco batteries and ontinental fresh water pumping sys- m.

Seine skiff for *Cindy W.* is welded steel, 16′ long, and of course also uilt in the W. B. Fisheries yard. It rries a 25-hp. Buda diesel whose wer is enhanced by a nozzle which once protects the wheel from foul- g by net and lines and also improves e power output.

A similar skiff with an identical diesel also was built for *Starling*, another seiner owned by B. W. Fisheries and skippered by "Tex" Williams himself. She has a 171-hp. Buda diesel main engine.

Mr. Williams explains that it is the policy of the yard to provide fishermen with off-season opportunity to work on their own boats.

While 1961 salmon fishing was still at its peak he already had developed plans to build another seiner this fall, which will be similar to *Cindy W.*, even to its Allis-Chalmers diesel.

**uilder and owners** of the steel combination fishing boat **Cindy W.** are: eorge "Tex" Williams, left, head of W. B. Fisheries, Bellingham; and his ephew Larry Williams, skipper and part owner.

## Custom Marine Handling NW Radiotelephone Line

Custom Marine Electronics, Inc., 2525 Byron St., San Diego, has been appointed to handle sales, installation and service of the new multi-channel NW Model NW-3-HST high seas radiotelephone.

John Tanner, president of Custom Marine Electronics, is enthusiastic about the advantages this set offers for offshore vessels to provide the most reliable communication. He is at present installing a set on his own boat.

John Bohannon, special fishing fleet salesman for Custom Marine, points out the advantages the set provides in communication not only with KMI-Oakland but also with WOM-Miami, and time ticks from WWV without sacrificing power transmissions of 265 w. input on 2 to 3-megacycle channels.

## B.C. Fishermen's July Earnings Set Record

British Columbia's fishermen earned more last July than in any other month in the province's fishing history, according to a tabulation by the Economic Branch of the Fisheries Department.

Value of July landings totalled $13,820,000. Previous high was in 1958 when July landings were valued at $10,860,000.

Salmon accounted for $12,400,000 of the total, compared with only $6,500,000 in July, 1960. Net-caught Coho and Pink landings for the month were the highest since detailed records were first kept a decade ago.

Value of halibut landings for the month was also at a record level, due to higher unit prices.

Increased prices and relatively uninterrupted fishing accounted for the month's performance.

## Oregon Crab Fishing Areas to Open Later

Later opening for Oregon commercial crab fishing will be effective this winter, fishing in the northern and southern areas of the coast will open 15 days later.

Area 1, from the Columbia River, and including the estuary, to Cascade Head, will be open from January 1 through September 15, 1962. Former opening was December 15.

Area 2, from Cascade Head to the California boundary, will open this winter December 1 instead of November 15.

J. LYNN MILLER, president, Nordby Supply Co., Seattle

"ONE OF OUR TOP LINES OF NETTINGS IS THE STARR LINE," says J. Lynn Miller, president of Nordby Supply Company, Seattle, Wash., one of the leading supply firms on the West Coast. "Starr pioneered the manufacture of synthetic nettings in this country. *Their nylon seine nettings, in a way, may be regarded as a 'quality control': in other words, if it's as good as Starr, it's good.* Among fishermen, Starr's nylon seine netting is generally accepted as the standard of the industry," Mr. Miller concludes.

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STARR NETS

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# As in California—

# Rising Tuna Fisheries of France Compensate for Sardines' Decline

RICHARD H. PHILIPS

Saint Jean de Luz, the major ench tuna port, is situated with its o suburbs, Ciboure and Socoa, at e mouth of the Nivelle river, a scant ven miles from the Spanish border. ntil ten years ago, the staple catch Saint Jean de Luz was sardines, 249 tons of which were unloaded in 47. By 1950, however, the sardine tch had fallen to 593 tons and the hermen were forced to turn to tuna hing which until that time had been rely a supplementary industry. To-y, Basque fishermen from Saint Jean Luz fish tuna 12 months of the ar in modern well-equipped clippers. ey account for over half the tuna loaded in France."

Since 1850, Basque fishermen have en catching the "red" tuna (Blue-) which migrate in tight schools the coast of Gascogne during the mmer months. The method of fish- changed little over the years: 9 to trolling lines were attached to two avy poles and pulled through the ter at smart speed. Spoons or squids de from hooks covered with whit-ed corn silk were used as lures. e "red" tuna range from 100 to ) pounds. The return from this thod of fishing was slight, how-r, when compared with the expen-e equipment and the experienced w needed to make a cruise profit-e. Experiments were made with dine seines, but the tuna tore the s to pieces. Live-bait methods of hing were known in the port as ly as 1935, but it was difficult to roduce this new technique while sardine run was strong.

The first trials of the live-bait meth-

**Broad stern sections** characteristic of many European fishing vessels dominate in this group of medium-size French tuna fishermen at St. Jean de Luz, foremost tuna port of France.

od of fishing were made during the last days of the season in 1947. Under the supervision of Monsieur G. Pommerau, Director of the Enterprise Maritime Basque, one boat, the *Marie Elisabeth,* was equipped with a live-bait box made from an old wooden box through which sea water was circulated through an adaptation of the bilge pump. With the *Marie Elisabeth,* experiments were performed to test the method on Basque boats, fish and fishermen. The results achieved by the *Marie Elisabeth* were so successful that in 1948, the *Marie Elisabeth* and the *Nivelle,* aided by subsidies from the Committee Central de Peche Maritime, made further experiments with the live bait method of fishing. In 1949, a ship chandler from Saint Jean de Luz traveled to the United States to bring back information concerning the construction of live bait boxes and the outfitting of boats for live-bait fishing.

By 1955, Saint Jean de Luz had a tuna fleet of 75 radio and sounder equipped boats between 45 and 70' long with live-bait boxes with a capacity of 6 to 15 tons. In addition, five 75' 180-ton tuna clippers capable of speeds to 10½ knots with 350-hp. engines were in service. The clippers, inspired by American designs, have live-bait box capacities of 30 to 40 tons, are equipped to refrigerate with sea water, and have radio, radio-direction finders, and sounders.

• The live-bait method of fishing made tuna a profitable business for the fishermen and canners of Saint Jean de Luz. The next step was to exploit those areas of the Atlantic where tuna could be found during the winter months, when they were not available in the Gulf of Gascogne. Accordingly, with the financial aid of French canners, both Basque and Breton, boats were sent down the west coast of

**Mr. Philips** is a Seattle technical writer who spent the first three months of the present year in St. Jean de Luz, the foremost French tuna port, and while there secured first-hand the material for this article for Pacific Fisherman.

## French Tuna Nomenclature Confusing

- American tuna fishermen will find French tuna names rather bewildering. The term "red tuna" is used in France in referring to Bluefin.

Again, when a French fisherman uses the name "Albacore" he is speaking of Yellowfin; and when he speaks of "Germo" he means the species which is called Albacore in English.

In this article the author uses the French term "red tuna", but applies the names Yellowfin and Albacore to the species so designated in the American industry.

Africa to explore for tuna. As a result of this search, in 1955 the first fleet from the Basque coast to leave home waters since Basque sailors fished the waters of Newfoundland and Labrador in the 17th century went to Dakar on the West African coast to fish for Yellowfin. In the months between November, 1959, and June, 1960, clippers numbering 15 caught a total of 3,000 tons of fish, 2,300 tons of which were marketed in or around Saint Jean de Luz. This year, 24 boats went to Dakar to fish in the area which lies roughly between the islands of Cape Verde and Gambie on the African coast, and north toward the Canary Islands and Madera.

There are five active canneries in Dakar capable of producing about 150 tons of canned fish per day. Two of these canneries are associated with canneries in Saint Jean de Luz. In addition, a public refrigeration and storage plant with a capacity sufficient for all of the Yellowfin destined for France is available to all boats.

- During the months of June through October, Basque boats concentrate on the runs of Albacore and "red" tuna which migrate yearly through the Gulf of Gascogne, sometimes as far north as the southern tip of Ireland. It is significant that the abundance of Albacore in the gulf was not known until the live-bait method of fishing was introduced. The Albacore catch in 1960 was particularly encouraging in that there were very few small fish, most of the catch ranging from 14 to 30 lbs., which indicates that the stock of Albacore is not dwindling.

The Albacore which migrate into the gulf are believed to spawn in an area including the Sargasso Sea and bounded roughly by the southern tip of Florida, the Bermudas, the 40th longitude, and the north coast of South America. The young tuna remain in this area until they have reached 12 to 14" in length, then migrate seasonally into the northeastern Atlantic and the Gulf of Gascogne, but never leave waters which are at least 14° C and have a salinity of 35 parts per 1,000.

In 1959 a catch of 2,100 tons of "red" tuna, 4,000 tons of Albacore, and 1,300 tons of Yellowfin was unloaded in Saint Jean de Luz or neighboring Basque ports. Of this total of 7,400 tons, 5,400 tons were canned in the immediate area, where 80% of

**French tuna vessels** of the larger type in port at St. Jean de Luz following their return from winter fishing out of Dakar on the Senegal coast of Africa.

the fishing and canning business re rests on tuna. Although the "red" tu receipts dropped sharply in 1960 550 tons, 4,100 tons of Albacore, ar 2,300 tons of Yellowfin were unloa ed, and the total canned in the Sa Jean de Luz area was up to 5,485 to

To meet the increasing demands the tuna fleet, Ciboure and Saint Je le Luz have recently begun work whi will double the size of the port, a will provide new piers built to acco modate larger fleets of clippers. In a dition, a contract has been award for a new refrigeration unit capal of holding 1,000 tons of fish. T unit will be built with a governme loan which will be repaid through small duty on the fish unloaded Saint Jean de Luz.

- One of the problems now faci French canners and fishermen is t prospect that on January 1, 196 tariffs will be dropped from all ca ned fish sold within the Europe Economic Community, the "Comm Market". As both sardines and tu have long been protected by tarif the French fishing industry has n had to compete with outside countri In conjunction with this is the pro lem of introducing "industrial" fis ing into a country where each fish man owns, or hoped to own, his bo (In the French terminology, "indu trial fishing" refers to a system which the vessels as owned by t companies or the state, as distin from the individual fisherman ow ership which hitherto has been almo the exclusive practice in France.)

- To stimulate the purchase of ca ned fish in France, the National Fe eration of the French Syndicates Canners of Products of the Sea, w headquarters in Nantes, has organiz an advertising campaign to introdu canned sea foods into French hom A mobile kitchen is currently touri France accompanied by trained pe sonnel who demonstrate methods preparing canned sea foods, give fr cooking lessons, answer questions, a pass out samples of meals prepar with canned foods. The kitchen is se to all large fairs, and meals based canned fish are given to associatio of doctors, the press, and educato Publicity has also been extended newspaper advertising, posters, and movie, "The Art of Canning," whi is shown at gatherings throughc France.

Tuna fishing as a major industry France is still in its adolescence, b fishermen and canners alike are awa of its potential and are making eve effort to assure it a place of impo tance in the French economy.

# 00 Gillnetters ry Trolling for inks in Fraser

A daring attempt by Fraser River netters to make an end-run around sed period regulations for net fish- was tackled and thrown for a loss ly in September.

The play was stopped by concerted ion of the Salmon Commission and R. Hourston, Canadian area direc- of fisheries. They amended the ulations to close the Fraser river "commercial trolling" as well as fishing.

The development rose when some the "sea lawyers" among the gill- ters noted the fact the the regula- ns provided closure on the Fraser ver to gillnetting in order to permit apement of Pink salmon.

Nothing was said in regulations out trolling; so someone tried equip- g his gillnet boat with a troll license, les and the kind of lures favored Pinks.

The pioneer did nicely, and in no ne at all he was joined by 200 other netters-turned-trollers.

The fishing gear supply stores of veston, New Westminster and Van- uver were quickly cleaned out of "hootchie-kootchies" and other es said to have special appeal for nks.

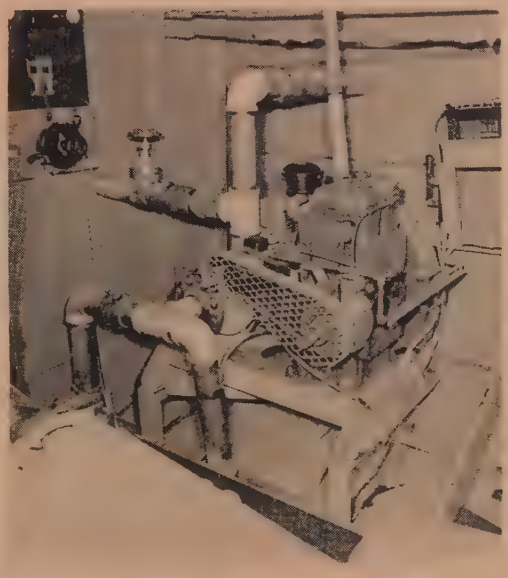
Before more supplies could be laid- the closure was extended to include lling as well as gillnetting—and the nks were given a new chance to get ough to the spawning grounds.

# apanese Trawlers sk Right to Fish n Gulf of Alaska

Extension of Japanese trawling erations to grounds south of the aska Peninsula is being sought ac- ely by at least three of Japan's at fishing companies now engaged such activity in eastern Bering Sea. To presstime the Japan Fishery ency had withheld action; and it is d that Arnie J. Suomela, fishery at- hee in the U. S. embassy, Tokyo, s "lodged a protest" against granting


IT'S Lister AIR COOLED DIESELS FOR GETTING THINGS DONE

ON THESE BOATS BUILT TO GET THINGS DONE



No slackers are the new "Falcon" and "Brant," built by Marine Construction and Design Company of Seattle on an order from the Alaska Packers' Association to come up with a couple of boats that would work 'round the calendar — serving equally well as salmon purse seiners or in the king crab fishery. A wise choice, then, the Lister Air-Cooled Diesels as the auxiliary power source on both boats. On each, a Model SL-2 Lister, delivering 8½-hp at 1800-rpm, powers a 1-kw generator and drives a centrifugal pump to fill or empty the hold or tank in 23 minutes. These units were built by Marine Equipment Co., Inc. of Seattle. Experienced boat builders and operators know that the surest way to get a power job done and done right aboard a boat, is to "let the Lister do it!"

Because of the exceptional advantages of their air-cooling, versatile Lister Diesels (3½ to 72-HP) have created an entirely new concept of auxiliary power generation. And these economical engines, sure-starting even in sub-zero temperatures, are ideal also for the propulsion of small and medium sized boats.

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LOS ANGELES—BOLSTAD SALES & SERVICE, 401 So. Centre St., San Pedro

of the permits requested on the grounds that such operations would be disturbing to American fishermen and their willingness to cooperate in international conservation.

Nevertheless, it is acknowledged in Tokyo that the Fishery Agency is under heavy pressure to permit the extension of trawling. Taiyo Gyogyo K.K. has already filed formal application; and Nippon Suisan K.K. and Hoko Suisan K.K. have indicated informally their desire to extend their activities into this region.

## Harry Yuile, 83, Who Served Fishermen, Dies

Henry W. Yuile, who devoted much of his life to the service of the Puget Sound fishing fleet, particularly in the matter of their accounts, supply and representation ashore, died in Seattle at the end of August. He was 83, and had retired at the end of 1960 as president of Pacific Fishing & Trading Co., when that subsidiary was merged into its parent Pacific Marine Supply Co.

Mr. Yuile continued, however, president of the Marine Specialty M ufacturing Co., the PMS fishing g manufacturing subsidiary.

A native of Scotland, Mr. Y came to the Pacific Northwest in 19 entering the employ of the Pac Net & Twine Co., predecessor of cific Marine Supply Co.; and in 1 became associated with Pacific F ing & Trading Co., which handled specialized business of supplying f ing vessels and maintaining their counts.

# *Alaska Reefer* Burns and Sinks With 275,000 Salmon

● *Alaska Reefer*, one of the powerful members of the Bristol Bay freezership fleet, burned and sank in Puget Sound late in August while returning from the North with a full cargo of frozen salmon, some canned fish, a couple of gillnet boats, and a crew of 12.

She was reported to have aboard 275,000 frozen salmon, Reds, Pinks, Cohoes and Chums; and also to be carrying some canned salmon.

The vessel is owned by Alaska Reefer Fisheries, Inc., of Tacoma; of which John Vilicich of San Pedro and Steve Vilicich are principal owners. The latter was master of the vessel.

She had been active in the salmon buying, freezing and transporting trade on Bristol Bay during the summer. While some of her fish were canned in the North, she brought some Reds south with her and put in at points in the Kodiak, Prince William Sound and Southeast Alaska areas to top-off her cargo.

The vessel originally was a wartime submarine net tender.

She first encountered trouble off Point Partridge as she entered Admiralty Inlet, Puget Sound. Exp sion, followed by fire in her engi room, rendered her powerless, but was promptly assisted by the fish vessel *Miss Janet*, the steamer *Fly Dragon*, coast guard cutters, a F tug and several helicopters.

When the fire was finally c trolled, after several outbursts, effo were made to tow her to Port To send, and then to beach her. He ever, the water in her hold from fighting rendered her unmanagea and she sank near the Indian Isl shore in about three fathoms.


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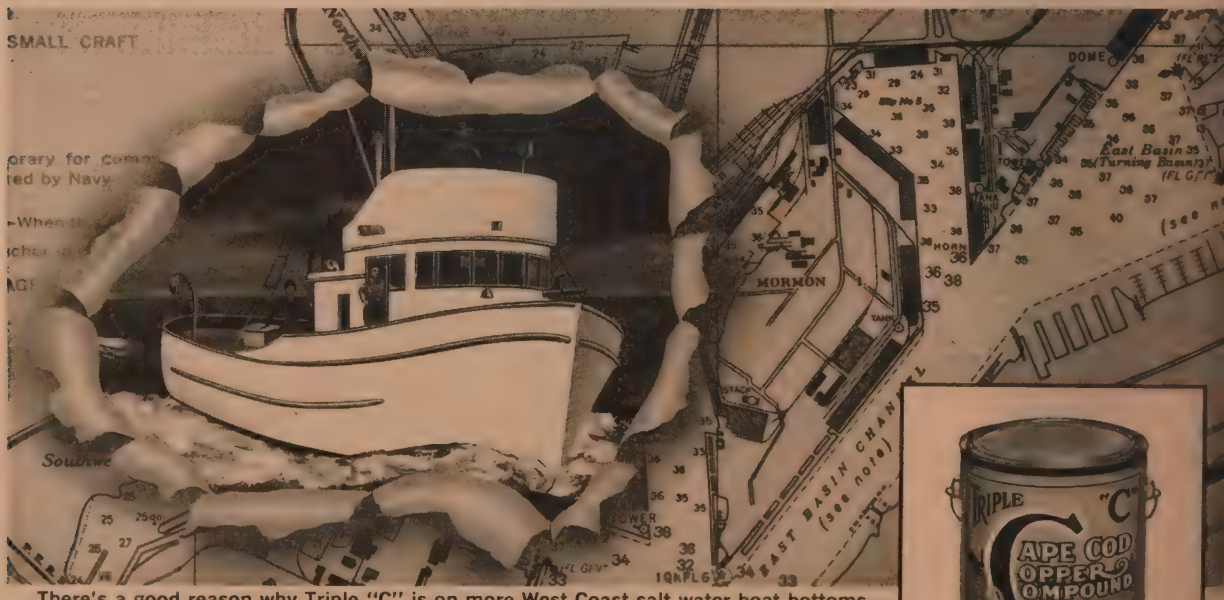


There's a good reason why Triple "C" is on more West Coast salt water boat bottoms than any other paint. It's because fishermen and other work boat operators know Triple "C"— Cape Cod Copper Compound — provides extra months of trouble-free operation for every dollar invested. Your dealer will tell you that it's the world's finest anti-fouling paint: ask him for Triple "C" today.

**AMERICAN MARINE PAINT COMPANY**

Home Office: 311 California Street, San Francisco

QUALITY PAINTS SINCE 1903

# NOTES On NETS—

## What Mesh, Depth and Fiber Catches Most Fish?

Mesh size in fishing nets is one of
e subjects which breeds arguments
ust like a horse race or a cock
, or salmon traps, for example.
he 1961 season produced more
its share of mesh size arguments
difference of opinion.
some cases the solutions were
ht scientifically. In others there
much heat, but not a lot of light.
ere are some of the cases:

ubject of proper mesh size for
ol Bay Red salmon fishing came
or a lot of discussion last winter
re the Alaska Fish and Game
d. Resident fishermen on the
wanted a mesh size smaller than
long-standing 5½" minimum.
ologists generally condemned the
osal, saying that smaller mesh
ld tend to take an undue propor-
of females, which should be al-
d to escape in greater numbers
the larger males.
nyway, the ADF&G last summer
p a study of the subject. A fish-
operation was conducted out of
Naknek during closed periods with
special nets, fished by practical
rmen, but with the results noted
samples studied and tabulated by
nathematicians, which means bi-
sts who are smart with figures.
ead man of the study is Donald
f, bio-math specialist on the Alas-
epartment's staff. He was assisted
by Dr. Gerald Paulik, an ad-
ed statistician from the Univer-
of Washington, working with the
eries Research Institute.
ney did their fishing below the
r deadline of the Naknek dis-
using two nets. The gillnets
made up with 12.5-fathom pan-
f web at the ends and three 25-
m panels in between. In Net No.
e panels from end to end were
posed of nylon web in mesh sizes
: 5½", 5", 5½", 6", 5½".
et No. 2 panels were: 5¼", 4¾",
, 5¾", 5¼".
ney caught several thousand sam-
each of which was measured,
d and accounted for as to the
size in which caught.
r. Siniff expects to have results
winter.
me people may be inclined to

**Mesh-Size Mathematics** are the present problems of these two experts, working to determine the effect of various mesh sizes on the catch of Bristol Bay Reds. On the left, Dr. Gerald Paulik, Fisheries Research Institute statistical specialist; and Donald Siniff, ADF&G bio-mathematician.

comment: "That's all been done before. Why do they have to do it all over again? That was done years ago."

Not with nylon nets. The earlier tests on selectivity of mesh sizes on Bristol Bay Reds were all made with linen nets; and fishermen generally recognize that the fishing characteristics of nylon and linen ane sufficiently different to invalidate the former findings so far as modern gillnets are concerned.

### What Color Is Best in Gillnets?

● Quite apart from the matter of dulling the reflective qualities of monofilament nylon nets, this matter of net dyeing and color is an interesting matter, with no agreement among fishermen, who are in best position to know.

In general they feel it's good to have the net as nearly the color of the water as possible—and this certainly sounds reasonable where the water is rather clear.

In muddy waters, as on Bristol Bay or in the Fraser stream, there doesn't seem to be a clear case, although most fishermen under those conditions go for a dull greenish gray.

On Bristol Bay last summer note was taken of some blue nets, a few pinks, one definitely "orchid"; and now and then a pure white one with no dye whatsoever. Not that the fishermen wanted it that way, but the tide was dropping, the fishing period was due to open, and it was a question of fish a white net or miss the period, with its limit of 2,500 fish.

*PF* checked up when the boat came back and found that her limit had been taken as quickly as anyone else. The fishermen were convinced, and perfectly willing to fish their undyed net in future periods.

### Corks, Plastic Foam Floats, Grommets and Polypropylene

● There's a long, strong certain swing toward foamed plastic floats on Bristol Bay gillnets, but the older canneries all have immense inventories of the traditional cedar floats on hand—and they mean to use 'em up. When a fisherman who's wrecked or lost two good nets in a fishing period comes in begging for another, the net boss is pretty sure to find him one with cedar corks.

But when replacements are bought they are almost certain to be plastic foam, and preferably the new type with the inserted grommets of extra-tough plastic at the ends of the hole. The strain on the lines and hangings and floats, when a net's full of fish and the tide is tearing at it, cuts into foam plastic like a gillnetter's sheath knife going through a length of salami.

These grommets are a great innovation, and the salvation of plastic floats under the killing punishment of heavy fishing on Bristol Bay. They cost a few cents a float more, but they are really worth it.

This polypropylene plastic rope is the clear quill for corklines also. It's an integral buoy all by itself, helping the corks to float the net even when the strikers are foaming along the corkline; and it's smooth and flexible, easy on the hands, easy on the web, easy on the roller — easy in fact on everything except the pocketbook; but here again the price you pay for polypropylene seems to be money well spent.

# Do you miss calls?

Unless your boat's radiotelephone is equipped for enough channels, you may find the channel busy when you try to call. Or if you sail to other Pacific Coast ports, you may miss calls on their channels. For smooth sailing wherever you go, be sure your set is properly equipped. To get the full story—plus a directory and fact-filled booklet—just call our nearest business office and ask for the ship telephone representative.

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# ishing Porbeagles Off North America

# lorwegian Longliners Earn Good Shares

**W. NITTER EGENAES**

A Norwegian fishery novelty of current year is a successful beagle fishery in waters east and h of Newfoundland. As American Canadian statistics do not report lings of this type of shark the fish- may for that matter also be en- y new for the area.

A not very numerous group of Nor- ian 60 to 90′ fishing vessels carry a regular porbeagle fishery with glines in the North Sea and in the ntic off Ireland and the British s. Their landings of 600 to 1,000 s a year find a ready market in y and certain central European ntries.

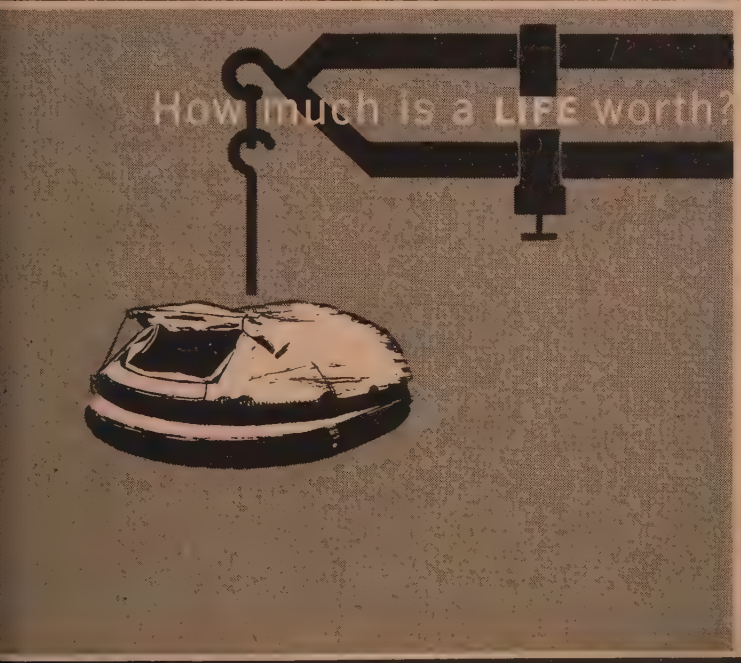
The new porbeagle venture has been neered by Norwegian halibut fish- en. When hauling halibut gear off Canadian eastern seabord they y and then also hooked some cimens of good-sized porbeagle. Contemporary surface observations indicate that the hookings were all not accidental.

These were the facts that made Rasmus Ervik of Aalesund, owner of the m/v *Juvel* (113.5′ registered length), fit out his ship with special porbeagle gear for her traditional summer operations in the northwest Atlantic. After a 70 days trip she landed 85 tons of the sharks at Aalesund in the middle of July. *A slightly higher price than for distant water halibut was obtained* and about kr. 357,000 ($50,140) was grossed. Her crew of only nine men got a very handsome share.

August 20 m/v *Volstad* arrived at Aalesund from the same area. Owing to the unsatisfactory development of the area's halibut fishing she had re-rigged her line gear for porbeagle fishing and landed 55 tons of the sharks plus 35 tons of halibut (both frozen) and 7 tons of salted cod. She realized about kr. 370,000. September 2 the *Teigenes* arrived with a third catch of 60 tons.

When this was written five Norwegian longliners were fishing for porbeagles in the northwest Atlantic and among them were the *Juvel* and the *Volstad*. At her home port *Juvel's* return from her second trip with a full load was expected any time. Among her men on the second trip was also the expert biologist on sharks, Olav Aasen of the Norwegian Sea Fisheries Research Institute.

The porbeagle (*Lamna cornubica* or *Lamna nasus*) is common in northern waters and attains in colder areas a length of about 3 meters. Feeding on herring, mackerel and other school fish of the surface layers the porbeagle is a typical and a very fast-moving wanderer. Fish weighing 25 to 80 or 100 kilos after removal of viscera, head and tail commands the best prices. It is caught by floating longline gear, which owing to the porbeagle's rows of sharp teeth must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be fitted with foregoers (gangions) of silky steel wire. They are attached to the line by swivel hooks with intervals of 15 fathoms. After having shot the line the vessel moves back along the row of pneumatic floats, which immediately reveal when a fish is hooked and ready for onboard-heaving. foregoer is hooked off the line a new one attached.

All the Norwegian vessels f halibut and porbeagle in the n west Atlantic are fitted with fre installations.

# What's a "Porbeagle"

● *What's a Porbeagle?* is apt to be the first question asked by fishermen reading the accompanying article from our Norwegian correspondent.

We had the same question, and posed it to Dr. William F. Royce, director of the Fisheries Research Institute. After a facetious first comment about it being "a no-good hunting dog," he settled down scientifically and we received information which condenses about like this:

*Porbeagle* is the common name in English for *Lamna cornubica* or *Lamna nasus*. These are big, strong, fast-swimming, far-ranging sharks of temperate to subarctic seas. There are four or five generally accepted species of the *Lamna* genus found in various parts of the world, but some scientists are inclined to believe they are all the same species. One authority, in speaks of *Porbeagle, Lamna corn* as inhabiting both the North At and North Pacific.

The *Salmon Shark*, so-calle the Japanese, who regard it serious high seas predator on sa is one of the *Lamna* genus. It i quently taken in FRI seining the Aleutians.

*Mackerel Shark* is the New En market term for the *Lamna* s h landed there and at New York, it is said to command a price n below swordfish, and a good m among New Yorkers of Ita ancestry.

Remember what Mr. Egenaes about Porbeagles commanding a above that of distant water halib Aelesund?

## 6,000 King Crabs Tagged By ADFG off Alitak

Working from the crabber *Oceanic* under charter, Alaska Department of Fish and Game biologists in September tagged 6,000 adult King crabs in the largest project of this kind in Alaska's developing research on this shellfish resource. The tags, returned to ADF&G, are worth $2 each to the finder.

Guy Powell, research biologist in charge of this work, reports that the return of 30% of the tags within the first year in past studies indicates that heavy fishing intensity withdraws adult crabs at approximately that rate from local stocks under exploitation.

Assisting in the tagging were G Gray, Dave Warner and Dave H The tagging was done over an ranging from Alitak Bay ove ocean area of about 300 square and at average depth of 100 fat

## Power Scow Sinks Sein

The Alaska limit seiner *Li* owned by Richard Ridley of K kan, was sunk in collision wit power scow *Eyak* of New En Fish Co. fleet in Chatham Str August.

Lawrence Allen of the seiner's was severely injured. Others re were: Capt. Lawrence Cegarra, Ruzieka, A. W. Vassar, Dave Ostenberg, all of Ketchikan.

Edward A. Saneback is skipp the *Eyak*.

## Andrew Esposito Wins AFU Salmon Tag Prize

Alaska Fishermen's Union salmon tag prize went to Andre posito of Monterey, Calif., George Johansen, union secr treasurer, pulled out of a box turned in last summer by Esposit

This was part of the progra signed to interest Bristol Bay

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hermen in detecting and reporting
s fixed on salmon on the mid-
ean fishing grounds of the Japanese
et by research vessels of the Fish-
es Research Institute operating
der a contract for investigation from
American Section of the Interna-
nal North Pacific Fisheries Com-
ssion. The AFU provided the funds
the prize money.

Total salmon tagged in this study
mbered 5,414. At time of writing
re than 1,000 tags had been re-
ned.

## rly Sardine Catch
## ps 1960 Total

California sardine fishery, which
s year is facing its first six-months-
g season in many years, was ahead
last year at date of writing. Bureau
Commercial Fisheries figures for
season through September 16
owed a total state catch of 6,053
s, just passing the 1960 year-to-
e total of 6,023.

San Pedro boats were wholly re-
nsible for the lead. While Monte-
landings (including some trucked
from Port Hueneme) were behind
t year's figures, 1,067 to 1,424, San
dro fishermen brought in 4,809 tons
s year to mid-September as against
93 last year.

The fishermen were encouraged by
good starting price, $50 per ton,
ich is $15 ahead of last year's
ure.

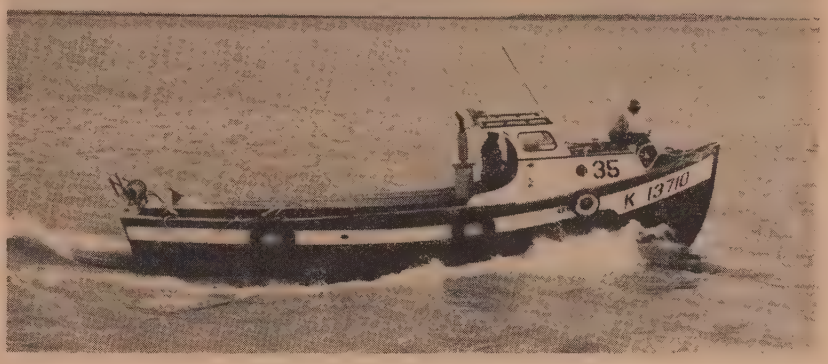
The season began promptly on Sep-
mber 4, following the Labor Day
liday. The first night out, San Pedro
hermen caught about 1,200 tons,
ich compares nicely with last year's
ne opening-night catch of 370 tons.

A few days later, fishing slowed
wn and dropped behind 1960's fig-
s. The lag, however, seemed only
mporary, and by mid-month 1960
dings were over last year's again.

Some mackerel was being brought
along with the sardines. The Sep-
mber fishery had competition for
hermen's attention from local Blue-
which was running well and at-
cting a lot of local boats.

The market for sardines seemed im-
oved this year over last, canners
cepting about all the fish they could
. Early in the season, with short
ches and a discouraging season fore-
t from the California Fish & Game
partment, canners were hunting for
harder than they have for some
ars.

# Two Brothers and Their Boat




● Here are M. Hjorten and E. Hjorten, brothers, and their Bristol Bay gillnetter—Bumble Bee 35, one of the Waukesha diesel-powered fleet which performed admirably in Alaska during 1961, first year for this improved model with its high, dry, safe bow and load-carrying mid-section.

Did they like **BB-35** and her model?

**Did they?** Mel is superintendent in the Bumble Bee Shipyard at Astoria, where the boats were built. He likes 'em so well he got one for himself.

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Pacific Fisherman's

# HIGHLINE CORNER

***Ideas, Devices, Methods Fishermen Find Profitable***

## Foam Plastic Buoys for Crab Pots

**Crab Pot Buoy** service is a new field of the fisheries which plastics have entered successfully, and where they are proving vastly superior to the old cedar ones fishermen made after the manner of Maine lobster pot markers; or clusters of cork seine floats. Here's Fiberplastics' answer, shown with a standard crab pot and a legal crab (cooked) included for size comparison.

● Foamed plastic crab pot buoys which are lighter and stronger and tougher than cork—an a *lot* lighter and floatier (new word) than cedar—are making their appearance along the Pacific Coast and finding a ready reception among fishermen as insurance against pot loss, which is one of the primary costs of doing business in the crab fishing trade.

With pots costing up to $50 each, two San Francisco men, Peter and Patrick Hunt, owners of Fiberplastic Inc., set about to build a better cr buoy on the theory, perhaps, that t crabs would beat a path to the po offering them.

They had some discouragemen with plastic foams which crush under the pressure which crab buo must be expected now and then meet. But eventually they found means of preventing this, and the Ko pers Co., Inc., plastic foam whi they use, molded in a density of on 5 lbs. per cubic foot, successful withstands hydrostatic pressure f weeks at a depth of 25 fathom Swiftest tides won't pull buoys greater depths than that; and do runs for weeks at a time.

The floats are 18" long, 5" in di meter, and are rounded at the en to avoid fouling. The through-hol are protected with high-strengt extra-tough plastic grommets to pr vent damage to the buoy from li chafe and cutting.

The Fiberplastic buoys are deliver primed in International Orange, whi will take a nice coat of paint for fis ermen who are particular.

## Shallow Draft for Seven Rivers Area in Alitak

● Accent on shallow draft is the prime feature of a class of baby beach seiners built this spring by Grandy, Seattle, for Kadiak Fisheries Co., specifically for fishing the Seven Rivers area of southwest Kodiak Island, in the Alitak district.

This is rocky ground, laced with reefs, and with barely enough water to float a Pink salmon—"at high tide," adds Charles P. "Chuck" Turner, Kadiak vice president and general superintendent.

The boats, which carry K Series numbers—*K*-22, *K*-23, etc., are 24' in length by 9' beam. They are powered by 80-hp. Lathrop gas engines, turning the wheel in a steel tunnel.

How much do they draw? Believe it or not, 8 or 9". The range in draft marks the variation in opinion between Mr. Turner and Don Mellis, Kadiak superintendent. Whoever is right, the difference isn't much; a though it could be important fishi in a foot of water.

The seines used, which actually a round-haul nets rather than bea seines, are 135 fathoms long by 1 meshes deep, which provides lots bag in water only inches deep.

"It's hard ground to fish—especial hard on nets," says Chuck Turne "but no one's ever drowned there."


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# "TRILOCK
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**says NICK MOSICH Jr., skipper of the newly-converted tuna purse-seiner Mauritania.**

never had a net work more smoothly than my new ilock seine", says Capt. Mosich. "We had no fish tangling roblems whatever, even with the smaller fish.

Four-fifths of my net is Trilock, with about 100 fathoms conventional webbing. The Trilock works so much etter and faster that I wish I had specified all Trilock. was really better than I expected".

RILOCK (registered trade name) is a new type all-nylon sh net, designed and proved to be stronger and noother. TRILOCK reduces friction, works faster and sier in the equipment. Its special construction sub-antially reduces porpoise and shark problems.

EWART'S SUPPLIES furnished the Mauritania's net with ongex and Yellow Buoy floats, Whitlock (div. of Ply-outh Cordage) rope, Wickwire Exgal wire rope, McKay ain, Trilock and Gold Eagle webbing, Brownell lacing ine, U.S. Net & Twine Co. dip.

**Young, progressive Nick Mosich (left) teams with old-hand Jack Borcich (right) on the 350-ton Mauritania, owned by Nick Mosich Sr. and Jr., John and Steve Vilicich and Manuel Cardoza. Her net was hung in our complete yard, with power-block and fork-lift trucks.**

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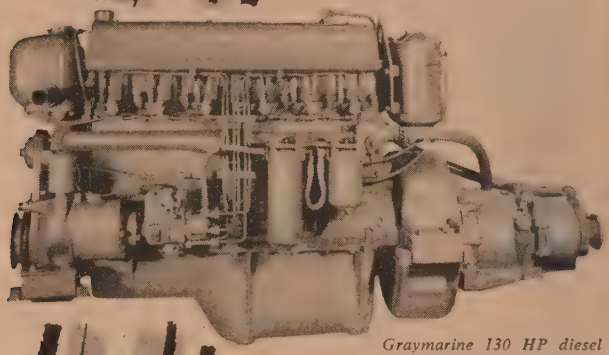

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# Million-Ton Pilchard Catch Forecast for Africa

y PETER HJUL

The remarkable run of good fishng off the West Coast of South Africa ontinued into the 1961 shoal season hen the catch of pilchards, maasanker and mackerel exceeded 500,000 nort tons for the first time and eached a total of 542,429 tons. The eason, which started with the largest onthly catches ever brought in by Vest Coast boats, lasted from Janary to the end of July.

A total of 140 boats brought in the atch, and 15 processing factories roduced 119,388 short tons of fish eal, 40,327 long tons of fish body il, and 43,226,744 lbs. of canned ilchards, maasbanker and mackerel.

Scientists of the South African Divion of Sea Fisheries were surprised by he big increase in the 1961 catch ver the record landings in the same eriod of 423,524 tons. From temerature and other observations made uring the autumn of 1960, they had anticipated landings about the same as in 1960. But a newly-discovered phenomenon is thought to have produced the 1961 bonanza.

For years now fishery scientists engaged in the south and southwest African pilchard research program have suspected some connection between the fish shoals of the Cape West Coast and those of Walvis Bay—where six factories are expected to process a new record total this year of 375,000 short tons.

To check this link a tagging program was started in 1956. Small metal tags have since been inserted in the side of the bellies of pilchards taken by research vessels and released. In 1957 and 1958 three Walvis Bay tags were recovered by magnets in Cape factories. This season 12 tags inserted off Walvis Bay two to four years before were recovered in the Cape, and fishery scientists now believe that the big shoals of high-quality fish of the early part of the season were a movement of mature pilchards from the Walvis Bay area 700 miles to the north. For some reason that has still to be discovered these fish seem to move south against the north-flowing Benguela Current.

The quality of the fish was about the best ever seen in Cape factories. They gave an outstanding canned product and in the first two months of the season gave an oil yield of more than 20 gallons to the ton. In one factory the oil yield reached 33 gallons from a ton of raw fish.

With pilchards comprising 443,499 tons of the Cape catch and likely to comprise almost all of the 375,000 tons taken off Walvis Bay, landings of this fish in the Southern African fishery in 1961 should exceed the highest ever in the peak years of the California fishery. The season is also almost certain to push the south and southwest African catch of all fish beyond 1,000,000 short tons for the first time.


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uy them from your favorite Marine Supply House or hip Repair Yard when you haul out. Large west coast ocks, popular sizes. Factory stock to 11⅞-inch shaft ze available overnight by air.

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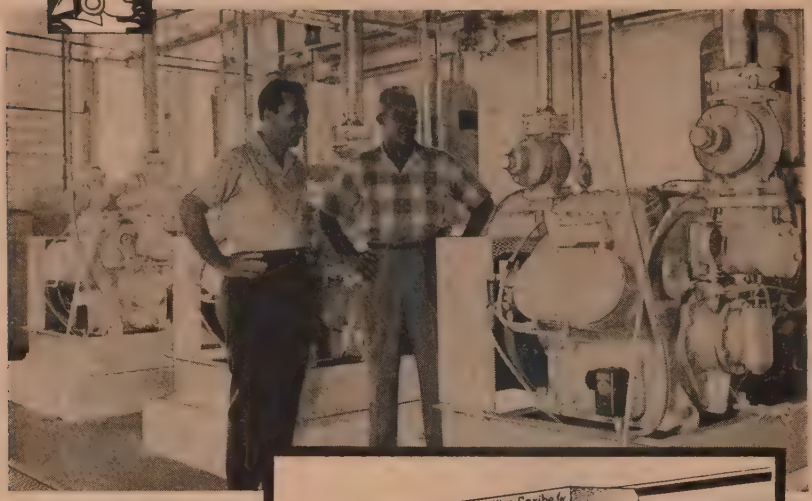

Refrigeration and air conditioning for the entire Star-Kist Caribe plant is provided by six 8-cylinder Vilter VMC compressors. Thomas W. Crump (left), President of Star-Kist Caribe, Inc., and Louis Marincovich, dock and fish room supervisor, are shown inspecting the ultra-modern refrigeration system.

Star-Kist Caribe tuna cannery fronting on the open sea of the Mayaguez roadstead, Puerto Rico. The modern tuna packing facilities here compare with the finest in the world.

Helping to meet the growing demand for canned tuna products in the world markets is the Star-Kist Caribe cannery in Puerto Rico. Because of the specialized problem created by the plant's tropical location, effective refrigeration was of vital importance. Vilter refrigeration was selected to meet the demanding environmental conditions.

Six 8-cylinder Vilter VMC compressors were installed to fulfill the refrigeration and air conditioning requirements of the entire plant. As the fish are unloaded from the tuna seiners they are immediately placed in a 165,000 cu. ft. cold storage freezer where they are frozen and held at 0° F. When the tuna are ready for processing they are thawed, butchered and cooked. Cooling is then necessary prior to packing and again after the cans are removed from the retorts and readied for the labeling operation. Due to the tropic location of the plant, with its extremely high relative humidity, air conditioning of the packing room is required for worker comfort.

The Star-Kist people were very satisfied with the Vilter installation. They were particularly pleased with the draft-free air conditioning of the packing room and the uniform temperature maintained throughout the entire area.

Why not see your nearest Vilter distributor or write Vilter direct for helpful advice on your vessel, or shore plant cannery refrigeration needs.

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## Pacific Fisherman's Editor Reporting From Japan

• PACIFIC FISHERMAN'S internationa editorial enterprise took its editor t the Orient as this October issue wen to press; and for the next two month DeWitt Gilbert will be reporting fron Japan.

His editorial assignment there ha three specific objectives:

1. To study developments in Jap anese fishing vessels and fishing gea together with the expansion of Japan' fishing operations in the halibut an King crab resources of Bering Sea.

2. To study Japan's internationa marketing of its principal product sold abroad, such as salmon, tun canned and frozen, canned crab an other shellfish.

3. To attend the International Nort Pacific Fisheries Commission confer ence as a member of the America Section's advisory committee. The pre liminary technical meetings of the con ference will convene October 22, con tinuing until November 6, when th general conference opens, to run unti November 11.

• Expansion of Japan's activities i the halibut, crab, and bottom fishin resources of the Bering Sea lend special interest to this editorial enter prise.

Furthermore, the growing partici pation of the Soviet Union in the fish eries of the North Pacific, together with the increasingly intense interes in the future of international under standing and conservation in the Nort Pacific, renders the coming confer ence one of commanding importance

## Van Camp in Africa Develops Freetown Plant

Van Camp Sea Food Company ha purchased the cold storage plant a Kissy, Sierra Leone, and plans to de velop Freetown as its main center fo offshore tuna fishing in the West Afri can area. Work on the jetty and th brine-freezing tanks has reportedl begun and these facilities should b ready for use by the end of the yea

The tanks are for holding tuna fo transshipment to Puerto Rico or th United States for processing, but cannery may be constructed if ade quate tuna supplies are available an a satisfactory source of water can b found.

During 1960, 2,340 tons of tun was landed at Freetown, whereas th total for the first five months of 196 was 2,768 tons.

FOOD FISH MARKETING
Section of PACIFIC FISHERMAN —

*News and Views of National Trade in Fish and Shellfish*

October 1961

# It's a Red Year in Salmon

Operating without benefit of formal opening prices, the Red salmon market moved with a fairly firm step into mid-autumn despite the fact that it is carrying a larger load of salmon than it has had the privilege of shouldering in years.

Largest factors surrendered their traditional roles as price-namers and moved into the business of selling without fanfare. The fact is that featured brands were priced at $37 per case of 48 talls, less a dollar for prompt shipment.

This led to some re-pricing on the part of a couple of substantial holders who generally sell the buyers' label trade. Their prices were revised to $34, but the movement had stopped there at time of writing and had failed to attract new followers.

Red halves were a little heavy at $22 to $25; but quarters Red seemed surprisingly strong at $14.50 to $15. British Columbia didn't pack as many Sockeye quarters as expected, due doubtless to the short run to the Fraser. The export buyers came to Seattle in the hope of filling their requirements, but they were a little late and a little low.

The U. S. domestic market appears to be taking more interest in quarters as restaurants are finding that a "Salmon Steak Salad" sells well. It consists of a Sockeye quarter on a lettuce leaf with a dab of potato salad and a bit of mayonnaise. Looks nice, and it's a good, honest lunch.

● Japan is putting a pretty high price on its first-class Red halves. No prices were mentioned until about the middle of September, and then quotes distinguished between Reds packed from fresh fish and those from frozen. Prices were on the basis of f.o.b. Yokohama, and were as follows: halves, 4 doz., $19.10 for fresh; $18.40 when packed from frozen fish. Quarters, 8 doz. were: $23.40 from fresh and $22.15 from frozen.

The Japanese prices on Reds were quite surprising in view of the fact that the pack is the largest Japan has produced since the war. Salmon traders figure that the prices quoted are too high for the product to enter the U.S. market. They count the fresh Red halves at $19.10 as priced very close to $25 in the U.S. with all charges paid.

Comparable goods of domestic packing can be had at $22 Coast.

Japanese Pink prices were not available at presstime.

● Consumer reaction to salmon at present prices, which include $28 for Pink talls and $25 for Chums, is something to be watched closely.

Early movement from the Pacific Coast was good for those packers who have fish available early. They rolled cars readily because they had fish on hand and the pipelines were empty; but how well sustained this volume movement would be rested with the American housewife, and she hasn't yet had time to register her reaction.

This much is sure: Pinks and Chums will not be plentiful.

Japan's excellent pack is reported to be 70% Reds. Alaska has 1.3 million cases of Pinks and British Columbia above 650,000 cases. Puget Sound Pink production was nominal, a bitter disappointment.

Chums are way down—510,000 in Alaska; under 100,000 to late September in British Columbia; Puget Sound prospects poor.

## You Can Buy 'em in Britain, but not in U.S.

You read about this revolutionary pack of oysters recently. If you have not yet tried them contact George Tabor immediately
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IMPERIAL HOUSE, PUDDING LANE, LONDON, E.C.3

Individually frozen oysters in re-sealed plastic packages, produced by Nichiro Gyogyo K.K. at its ultra-modern oyster plant in Hiroshima, Japan, and sold by Coast Oyster Co., South Bend, Wash., are being marketed in the United Kingdom (see accompanying advertisement from Fish Trades Gazette, London) but are not yet available for sale in the United States.

Barrier to sales of the product in this country rises in the objection of federal authorities to labelling the product with the *Willapoint* brand of Coast Oyster Co. Objection seems to be based on the contention that *Willapoint* carries a geographic connotation which the Nichiro product cannot meet, even though the label plainly carries the statement "Product of Japan."

*Daybreak* brand used on the individually frozen oysters in Britain is Nichiro's world-famous label, and would appear readily applicable to sales in the United States.

Nichiro's remarkable oyster packing plant at Hiroshima was fully described in PACIFIC FISHERMAN for September, 1960. This is believed to be the only article yet printed in English on what is generally accepted as the most modern and advanced oyster plant in the world.

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## Fur Breeders Purchase Nefco's Astoria Plant

Fish packing and freezing plant formerly operated by New England Fish Co. at Astoria, Ore., was sold in August to the Northwest Fur Breeders Cooperative of Edmonds, Wash. The cooperative, which also operates a plant at Edmonds for freezing fish house offal for the feeding of fur-bearing animals, will utilize the Astoria plant for similar purposes.

## Irving Rischall Opens Triangle Brokerage Co.

Irving Rischall, for many years a distributor in the seafood business in Los Angeles and a charter member and former treasurer of the Southern California Fisheries Association, who for the past five years was in the frozen food brokerage business, has opened his own offices at 726 S. San Pedro Street, Los Angeles, known as Triangle Brokerage Co., specializing in fish and fishery products, frozen foods, specialties and imports.

## So. Calif. Domestic Tuna Deliveries

Cumulative totals for 1961 through Sept. 9, in tons, as reported by U.S. Market News Service

| | Albacore | Bluefin | Skipjack | Yellowfin | Bonito, etc. | Tot |
|---|---|---|---|---|---|---|
| Clippers and Albacore Fleet | 8,993 | ... | 6,662 | 9,887 | ... | 25,5 |
| Purse Seiners | 791 | 7,809 | 12,914 | 71,151 | 1,759 | 94,4 |
| **Total 1961 through Sept. 9** | 9,784 | 7,809 | 19,576 | 81,038 | 1,759 | 119,9 |
| Total 1960 | 11,956 | 4,335 | 19,220 | 70,782 | 125 | 106,4 |
| Total 1959 | 9,753 | 7,029 | 45,729 | 44,017 | 417 | 106,9 |

## Pacific Coast Imports of Frozen Tuna

Cumulative data in tons for 1961 through Sept. 9, and for other years to the nearest comporable date. Data from U. S. Market News Service.

| | Albacore | Skipjack | Yellowfin | Unclassified | Tota |
|---|---|---|---|---|---|
| San Francisco | 1,975 | ... | 5,969 | 299 | 8,2 |
| San Pedro | 6,891 | 2,909 | 13,296 | 137 | 23,2 |
| San Diego | 762 | 1,489 | 2,971 | 38 | 5,2 |
| **Total to Sept. 9, 1961** | 9,628 | 4,398 | 22,236 | 474 | 36,7 |
| 1960 | 13,738 | 7,520 | 28,093 | 560 | 49,9 |
| 1959 | 9,423 | 7,192 | 40,325 | 223 | 57,1 |

## Southern California Tuna Receipts

| | Albacore | Bluefin | Skipjack | Yellowfin | Bonito, etc. | Tot |
|---|---|---|---|---|---|---|
| San Pedro | 14,297 | 7,833 | 15,171 | 81,609 | 1,759 | 120,6 |
| San Diego | 2,456 | 151 | 8,803 | 15,696 | ... | 27,1 |
| **Total 1961 through Sept. 9** | 16,753 | 7,984 | 23,974 | 97,305 | 1,759 | 147,7 |
| Total 1960 | 23,836 | 4,478 | 26,480 | 91,270 | 125 | 146,1 |
| Total 1959 | 17,920 | 7,252 | 52,723 | 77,357 | 417 | 155,6 |

## Fish and Seafood Can Consumption Up in 1960

Consumption of tinplate for fish and seafood cans totalled 123,907 tons, according to the Can Manufacturers Institute. This represented an increase of 7.3%, which was particularly notable in a year when the other principal categories of food cans showed a decrease.

The biggest gain, percentage-wise, in "food" cans was in soft drinks, where the gain was 49.6%, but the volume only 73,478 tons.

Aluminum used in cans totalled 19,647 tons in 1960.

## Ruthford Heads N.F.I. Division for Promotion

E. A. Ruthford, vice president, San Juan Fishing & Packing Co., Seattle, this summer became national chairman of the National Fisheries Institute's promotions division.

With the adherence of the Halibut Association of North America to the NFI division, Palmer Olson of the New England Fish Co., Seattle, became HANA member of the promotions committee. Mr. Ruthford is president of the international halibut organization.

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## Kaufman and Holland Head Washington Research

Research division of the Washington Department of Fisheries was placed under the supervision of Donald E. Kauffman in August by George C. Starlund, director. Assistant supervisor of the research division will be Gilbert A. Holland.

Both men are veteran members of the Washington fisheries staff, and also have had varied experience with other research agencies of national, industrial and educational agencies; as well as over a geographical range from the Pacific Northwest and Alaska to Norway and the Philippines.

# Seattle Market

Market prices currently quoted at presstime by Pacific Northwest brokers and cannery sales department, cases of 48 tins, unless otherwise specified, good quality, as reported by the U. S. Bureau of Commercial Fisheries, Market News Service.

| Items and Packages | Per Case |
|---|---|
| **Puget Sound** | |
| Sockeye, halves | $ - 25 |
| Sockeye, quarters | 14.50- 15 |
| **Alaska** | |
| Red, talls | 35 -*37 |
| Red, halves | 22 -*25 |
| Red, quarters | 14.50- |
| Pink, talls | - 28 |
| Pink, halves | 15.50- 16.50 |
| Pink, 4 lbs. (12) | 29.00- |
| Med. Red, talls | 31 - 32 |
| Med. Red, halves | 18.50- 20 |
| Med. Red, quarters | 12.00- 14 |
| Med. Red Alaska, 4 lb. (12) | 34.00- |
| Chum, summer, tall | - 25 |
| Chum,summer, halves | - 14.50 |
| Chum, fall, 4-lbs. (12) | - 26 |
| Chinook, talls | - 32 |
| **Columbia River** | |
| Blueback, halves | -*27.50 |
| Blueback, quarters | - 16.50 |
| Chinook, fancy, halves | 27.50- 29 |
| Chinook, fancy, quarters | 14.50-*16.50 |
| Chinook, choice, halves | 19.50- 21.00 |
| Chinook, choice, quarters | - 13 |
| Silver, halves | 19 - 21 |
| Silver, quarters | - 13.25 |
| **Tuna, Northwest Pack** | |
| Albacore, fcy., 7 oz. | 12.50- 13.50 |
| Yellowfin, s/pack, 7 oz. | - 11.00 |
| Yellowfin, chunk, 6½ oz. | 10.00- 10.10 |
| **Tuna, Columbia River Pack** | |
| Albacore, fcy., 7 oz. | 14.85*16.25 |
| Albacore, fcy., 3½ oz. | 8.85- 9.15 |
| Albacore, chunk, 6½ oz. | 10.50-*13.25 |
| Albacore, chunk, 3 oz. | 6.50- 8 |
| Lightmeat, fcy., 7 oz. | *14.25 |
| Lightmeat, fcy., 3½ oz. | 8.55 |
| Lightmeat, chunk, 6½ oz. | *11.00 |
| Lightmeat, chunk, 3½ oz. | *7.50 |
| **Canned Shrimp** | |
| Northwest: 4½ oz. wet pack | 7.25- 7.50 |
| Alaska: Tiny (over 17 per oz.) | 7.25- 7.25 |
| Small (10-17 per oz.) | - 8 |
| Medium (6-9 per oz.) | - 8.50 |
| **Canned Crab** | |
| Dungeness, 24, 6½ oz. | 12.50- 13 |
| Dungeness, 24, 3½ oz. | - 8.25 |
| King, 24 - 15 oz. | - 32 |
| King, fcy., 7½ oz. | 32 - 33 |
| King, std., 24, 6½ oz. | - 14.50 |
| King, std., 24, 7½ oz. | - 16 |


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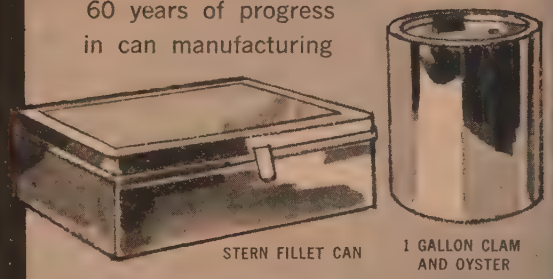

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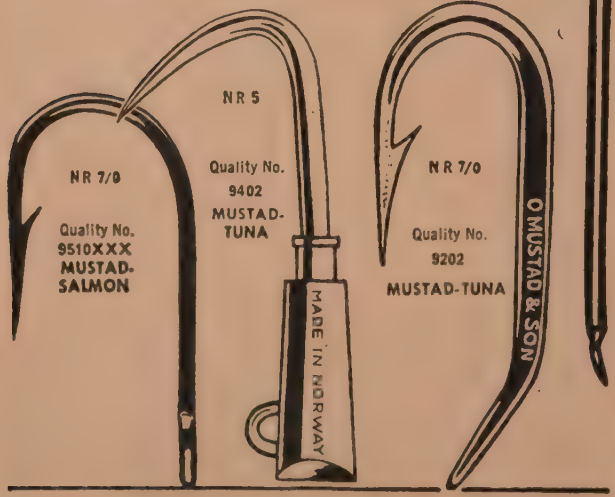


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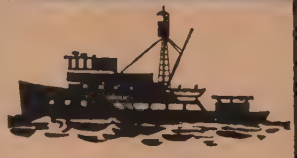

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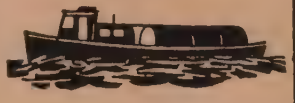

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# Bluefin Tuna Fishing is Best in Years

Southern California fishermen were oying the best run of local Bluefin four years in mid-September, and the first time in the history of the uthern fishery purse seiners were ching sizable quantities of Alba- e in all-Albacore sets as well as xed with other species of tuna.

The Bureau of Commercial Fish- es reports showed Bluefin landings 7,809 tons through the first week September. This is substantially ter than the 7,029 tons caught dur- the same period in 1959 and a ole lot better than the 4,335 tons ught in last year, but still a long ys from the 1958 gold mine of ,688 tons.

At a slightly higher price of $260 ton, Bluefin was proving a nice ndfall, particularly to the smaller al purse seiners who had been hav- a thin time of it since the Yellow- and Skipjack tuna disappeared m local waters some weeks before. The Bluefin ran pretty well through- t the month, the first week yielding 30 tons. At $260, the fishermen tted well over half a million dollars which will help make up the early season slow spell for the local vessels.

● Landings of Yellowfin tuna were still breaking records, and Skipjack catches were increasing as well. BCF and Tuna Commission figures showed the season-to-date catch of Yellowfin at 81,038 tons, including 303 tons transshipped. This is far in excess of the 70,782 tons caught last year to even date, which itself is way ahead of the previous year's 44,017.

Landings of Skipjack, which had lagged behind, went ahead of 1960 when 19,576 tons reported up to September 9. The first week of September saw landings of Skipjack of 877 tons, biggest week since the beginning of August, when 1,216 tons were brought in. Skipjack landings were almost holding even with Yellowfin week by week, but the total for the year to date is still far behind the Yellowfin landings.

### Seiners Land Albacore

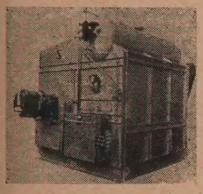
● The Albacore continued to run, and for the first time the bigger, faster converted purse seiners were catching significant quantities of Longfin. In two weeks of late August, as reported by the Bureau of Commercial Fisheries, the seiner fleet caught 423 and 175 tons.

But the total year-to-date catch of Albacore was lagging behind 1960, with 9,784 tons to 11,956. Yet dollar-wise, the fleet was better off this year with a price of $375, which brought in more money than a bigger catch at last year's $300 per ton.

## SJS Again Awards Rogers-Nefco Scholarship

The William Lister Rogers-New England Fish Company Scholarship has been awarded for the second year to Sheldon Jackson Junior College, Sitka, Alaska.

Dr. Rogers of San Francisco in offering the scholarship asked the college to seek out young men or women interested in advancing in the fisheries enterprise. Applicants will be chosen upon admission to Sheldon Jackson Junior College.

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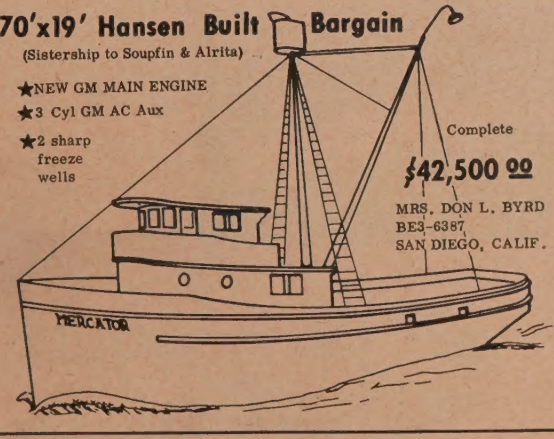

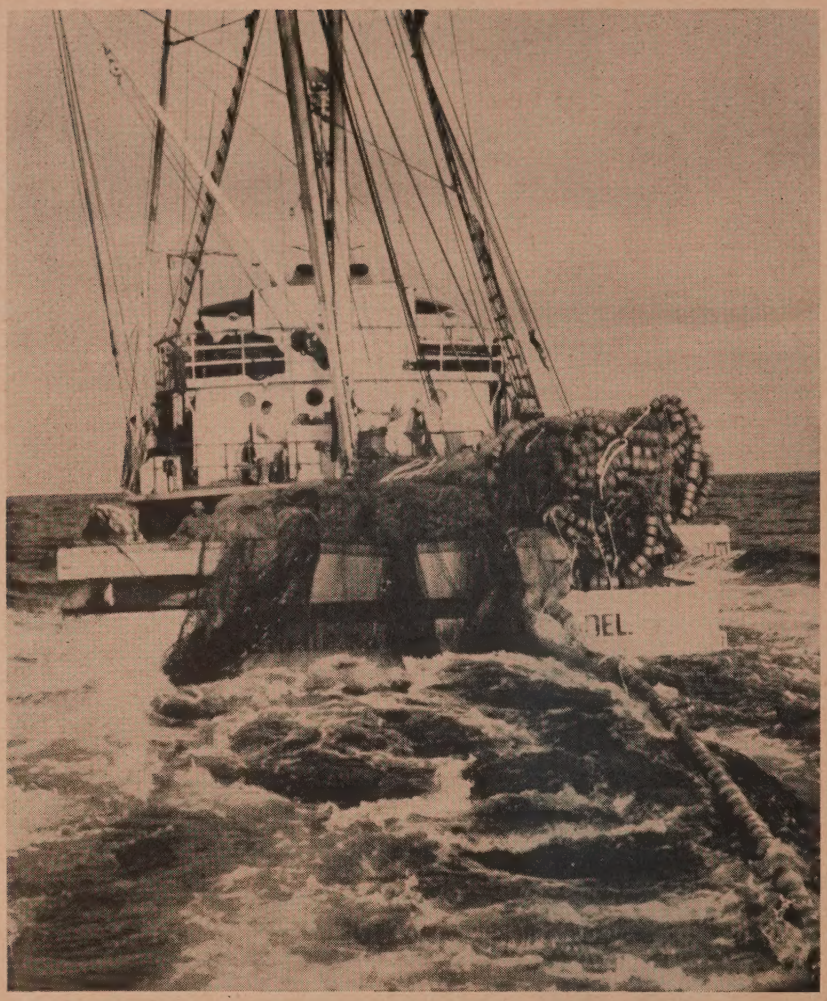

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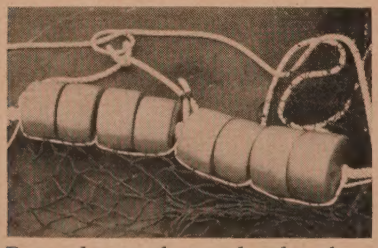

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# ADVERTISING INDEX


American Marine Paint Co. ..... 28

Burmeister & Wain ..... 41, 43

Carruthers Co., E. H. ..... 30
Consolidated Net & Twine Co. ..... 24
Continental Machinery Corp. ..... 21
Crofton Company ..... 43

Devoe & Reynolds Co., Inc. ..... 24

Fairbanks, Morse & Co.—Diesel Division 5
Fellows & Stewart ..... 42
Fibre-Plastic, Inc. ..... 41
Frohman & Sons, L. H. ..... 40

Goodrich Comany, B. F., Sponge Products Div. ..... 44

Hart & Burns ..... 24
Hiller, Paul W. ..... 32

Kurashiki Rayon Co., Ltd. ..... 3

Linen Thead Co., The ..... 4
Lister-Blackstone, Inc. ..... 27

Marine Construction & Design Co. ..... 20
Martinac Shipbuilding Corp., J. M. ..... 14
Moffitt, Inc., Lucian Q. ..... 37
Nomoi Fishing Net Mfg. Co. Ltd. ..... 6
Murphy Diesel Co. ..... 12
Mustad & Son, O. ..... 42

N C Marine ..... 30
New England Fish Co. ..... 40
Nordby Supply Co. ..... 31
Northwest Instrument Co., Inc. ..... 16
Pacific Telephone ..... 30
Pacific Towboat & Salvage Co. ..... 32
Puget Sound Engineering, Inc. ..... 34

Raytheon Comany, Marine Products Division ..... 36

Samson Cordage Corporation ..... 32
San Juan Fishing & Packing Co. ..... 42
Seattle Boiler Works ..... 43
Sharples Corp., The ..... 2
Shore Line Diesel Maintenance ..... 32
Standard Oil Company of Calif. ..... Inside Front Cover
Starr Net Company, A. M. ..... 24
Stern Can Co. ..... 42
Stix, Inc., Robert L. ..... 39

Tacoma Boatbuilding Co. ..... 33
Texaco, Inc. ..... Inside Back Cover

U. S. Net & Twine Co. ..... 35

Viking Equipment Co. ..... 43
Vilter Manufacturing Corporation ..... 38

Waukesha Motor Co. ..Outside Back Cover
White Diesel Engine Division ..... 36

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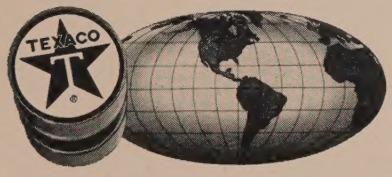


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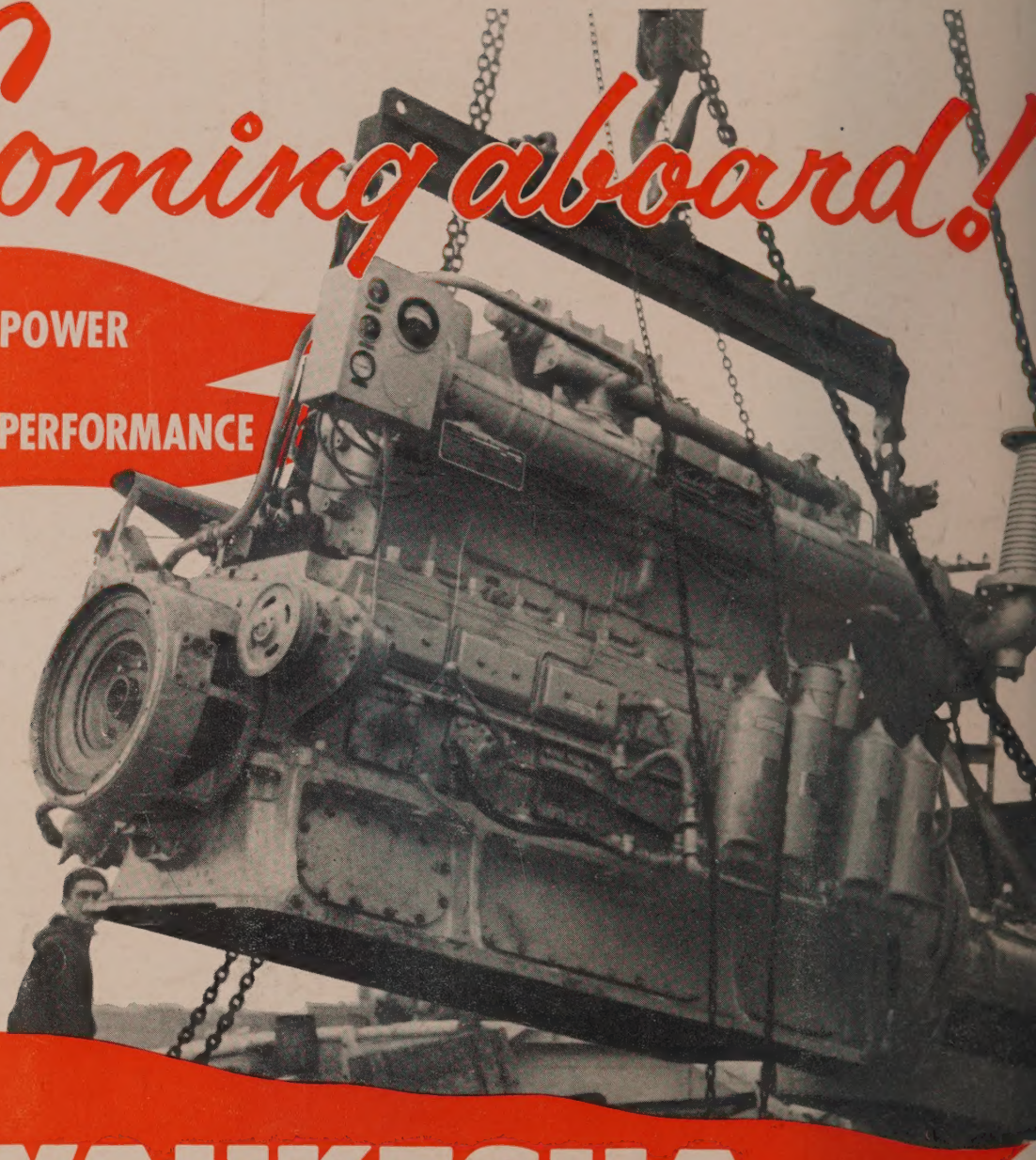

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